

No. 19-16122

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**United States Court of Appeals for the Ninth Circuit**

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FEDERAL TRADE COMMISSION,  
*Plaintiff – Appellee,*

v.

QUALCOMM INCORPORATED, A DELAWARE CORPORATION,  
*Defendant – Appellant.*

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Appeal from the U.S. District Court  
for the Northern District of California  
The Honorable Lucy H. Koh (No. 5:17-cv-00220-LHK)

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**MOTION FOR PARTIAL STAY OF  
INJUNCTION PENDING APPEAL**

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## **CORPORATE DISCLOSURE STATEMENT**

Pursuant to Federal Rule of Appellate Procedure 26.1, Qualcomm Incorporated (“Qualcomm”) states that it has no parent corporation and that no publicly held corporation owns 10% or more of Qualcomm’s stock.

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## MOTION FOR PARTIAL STAY OF INJUNCTION PENDING APPEAL

Defendant-Appellant Qualcomm Incorporated (“Qualcomm”) respectfully moves for a partial stay pending appeal of the injunction entered by the District Court. *See* A1 (in the Appendix submitted herewith).<sup>1</sup>

### INTRODUCTION

The District Court has entered an injunction requiring the nation’s leading innovator of cellular technology to fundamentally change the way it has done business for decades—a period in which the industry has flourished, competition has increased, prices have declined, and innovation has accelerated. The District Court relied on a theory that the head of the Department of Justice’s Antitrust Division has described as a “misuse of the antitrust laws” that “threatens to undermine innovation.”<sup>2</sup> A sitting Commissioner of Plaintiff-Appellee Federal Trade

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<sup>1</sup> Pursuant to Circuit Rule 27-1(2), Appellant states that Appellee opposes any stay of the District Court’s injunction. Pursuant to Federal Rule of Appellate Procedure 8(2), Appellant states that it sought a stay (in whole or in part) in the District Court. The District Court summarily denied that relief. *See* A236.

<sup>2</sup> Makan Delrahim, Assistant Att’y Gen., Remarks at the Organisation for Economic Co-Operation and Development in Paris: “Don’t Stop Thinking About Tomorrow”: Promoting Innovation by

Commission (“FTC”) has condemned the District Court’s ruling as “both bad law and bad policy.”<sup>3</sup> As those unprecedented, stark criticisms from the Government’s own senior antitrust leadership reflect, the District Court’s injunction and the ruling on which it rests contravene settled precedent.

This Court has repeatedly found that a stay is warranted when—as here—an injunction imposes changes on a party’s business practices and commercial arrangements that cannot be undone by this Court’s later reversal of the district court’s judgment. There is no basis to depart from that settled, sound practice.

The design of the relevant provisions of the injunction is to change the very structure of Qualcomm’s business and to irreversibly reduce Qualcomm’s licensing revenue. It requires Qualcomm to renegotiate numerous long-term license agreements with its customers. Further, and

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Ensuring Market-Based Application of Antitrust to Intellectual Property (June 6, 2019), <https://www.justice.gov/opa/speech/assistant-attorney-general-makan-delrahim-delivers-remarks-organisation-economic-co>.

In all quotations, internal citations, punctuation, and footnotes are omitted, and emphasis is added.

<sup>3</sup> Christine Wilson, *A Court’s Dangerous Antitrust Overreach*, Wall St. J. (May 28, 2019), <https://www.wsj.com/articles/a-courts-dangerous-antitrust-overreach-11559085055>.



in conflict with settled industry practice, it compels Qualcomm to provide exhaustive patent licenses directly to other modem chip suppliers. It thus disrupts the long-standing practice of licensing only the makers of cell phones that incorporate those chips, thereby creating substantial inefficiencies, forcing upon Qualcomm potential patent exhaustion issues and severely undermining Qualcomm's ability to fully protect and recover the value of its patent portfolio.<sup>4</sup>

Critically for purposes of this Motion, the harm done by the District Court's order *cannot be undone* if this Court reverses the District Court's judgment—even on an expedited basis. Qualcomm will be unable to revert back to its current license agreements, undo this web of new agreements, reverse any exhaustion of its patent rights, or recover all the revenue lost or transaction costs incurred in the interim. Indeed, unless stayed, the injunction will significantly impair an American company

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<sup>4</sup> “Exhaustion” is the principle that the authorized sale of a product precludes any later assertion that the product infringes patent claims substantially embodied within the product. *See Quanta Computer, Inc. v. LG Elecs., Inc.*, 553 U.S. 617, 625, 638 (2008). Thus, if a patentee grants an “exhaustive” license, it may not allege that the licensed product, or any downstream product incorporating the licensed product, infringes the licensed patent claims that the licensed product substantially embodies.

that is the worldwide leader in the development of cellular technologies, at a critical moment in the development of the worldwide standards for next-generation 5G cellular systems, thereby forfeiting the lead to foreign interests.

Strikingly, the District Court entered the injunction without separate remedial proceedings, notwithstanding the Department of Justice's request for such a hearing and express warning that the entry of an injunction could cause "harm to competition and consumers." A255. Further, the federal government's Committee on Foreign Investment in the United States previously found that undermining Qualcomm's business model would harm its ability to invest in core research and development (such as 5G technologies), raising national security concerns. *See infra* at 28.

Qualcomm has separately moved, with the FTC's consent, for an expedited appeal. But expedition is no substitute for a stay. Expedited review alone does not protect Qualcomm from the irreversible disruptions to its ongoing operations and business model that would come from the immediate implementation of the injunction's structural requirements. Already, Qualcomm's counterparties are seeking to

renegotiate contracts in order to exploit the District Court's injunction. If this Court does not grant a stay, Qualcomm will be forced to negotiate under the cloud of an injunction requiring it to accept terms to which it would not otherwise agree. That may occur well before this Court could reasonably be expected to decide the case, even on an expedited basis.

### **STATEMENT OF THE CASE**

This case involves the licensing of cellular technology, and the manufacture and sale of cellular modem chips for use in mobile devices such as cell phones. As relevant here, there are three kinds of cellular-related businesses:

- (1) innovators, which develop and patent cellular technologies;
- (2) companies that make the modem chips that allow mobile devices to communicate with cellular networks; and
- (3) original equipment manufacturers (OEMs)—such as Samsung and Apple—which incorporate those chips and other patented technologies into mobile devices.

Qualcomm operates in the first two fields.

As to the first, Qualcomm was created by a group of engineers and communications professors to develop cellular technology. Since its

founding, the company has invested more than *57 billion* dollars in cellular research and development. Qualcomm has invented many fundamental cellular technologies spanning multiple generations and touching all aspects of cellular systems. The company holds approximately 140,000 domestic and foreign patents and pending patent applications. A264. Indeed, all mobile phones sold by OEMs embody an array of Qualcomm's patents. *See* A269, A274-A275.

Thousands of those are “standard essential patents” (SEPs) that are necessarily infringed by any cell phone that practices a particular cellular technical standard—such as the now-prevalent 4G LTE standard. (If a chip or other component in a phone infringes an SEP, then the phone containing the chip infringes that SEP as well.) As an SEP-holder, Qualcomm voluntarily contributed its technology to the relevant standard-development organizations and agreed to license its SEPs for certain purposes on fair, reasonable and non-discriminatory (FRAND) terms.

All the major licensors of cellular patents—including Qualcomm—license their patents to OEMs, not to modem chipmakers. A280, A285, A287-A289, A293, A295-A296. Qualcomm has entered into hundreds of

long-term, arm's-length licensing agreements with OEMs covering all of the OEMs' phones; some were negotiated over the course of years. *See* A299.

This settled industry practice is efficient. It reflects the fact that OEMs inevitably need patent licenses because assembled phones practice *both* patents that are infringed by modem chips *and* patents that are infringed only by the complete device. It would be very costly and complicated to assess and agree in advance on which patents would be practiced by which components or combinations of components or by the entire phone. Therefore, it is far more efficient to issue a comprehensive license to an OEM, rather than separately licensing both the OEM and each of its relevant component suppliers, such as modem chipmakers. *See* A293-A294, A304-A306, A311.

Several years after its founding and after establishing its patent licensing program, Qualcomm began selling modem chips. Qualcomm's chip products drive new innovations, features and capabilities into cell phones. But the cellular industry evolves rapidly every year. No chipmaker can sit on its laurels and hold its share of sales, because the technology constantly evolves. Qualcomm's foresight, engineering

prowess, innovations and R&D investments have repeatedly made it first to market in successive generations of cellular chipsets and across successive cellular standards. *See* A316, A319-A320, A325.

Qualcomm has always priced its OEM patent licenses separately from the chips it sells to OEMs. As discussed, Qualcomm began as a technology development company, and chose early on to license this technology widely. Ever since the company began selling chips as well, its practice has been not to sell chips to OEMs that had not first licensed the company's SEPs. This practice ensured that buying chips from Qualcomm did not become a path for OEMs to avoid paying for their fair share of the value of Qualcomm's intellectual property, particularly the innovations that Qualcomm regularly contributes to the cellular standards on which the industry is based. Qualcomm's prices for the chips it sells to OEMs do not include the value of the patented technologies reflected in those chips because that value has already been recovered in the OEM patent license. *See* A330-A331.

Qualcomm does nothing to block competing modem chipmakers from accessing and incorporating any of Qualcomm's SEPs in their products. Rival chipmakers enjoy this access—and sell modem chips in

competition with Qualcomm—without having to pay *any* royalties to Qualcomm. *See* A293-A294, A336, A339-A340.

2. Based on the vote of only two Commissioners, and over a rare dissent (A343), the FTC filed this suit. The FTC challenges certain of Qualcomm’s licensing practices on the ground that they unlawfully maintain Qualcomm’s monopoly in two chip markets.

The District Court (Koh, J.) agreed with the FTC that Qualcomm holds monopoly power in those markets. A34-A35, A42. Even if that were correct, monopoly power gained and maintained through skill and foresight is not unlawful. Indeed, “[t]he mere possession of monopoly power, and the concomitant charging of monopoly prices, is not only not unlawful; it is an important element of the free-market system.” *Verizon Comms, Inc. v. Law Offices of Curtis V. Trinko, LLP*, 540 U.S. 398, 407 (2004); *see also Pac. Bell Telephone v. linkLine Comms, Inc.*, 555 U.S. 438, 454 (2009) (“[A]ntitrust law does not prohibit lawfully obtained monopolies from charging monopoly prices.”). The Sherman Act “directs itself not against conduct which is competitive, even severely so, but against conduct which unfairly tends to *destroy competition itself*.” *Spectrum Sports, Inc. v. McQuillan*, 506 U.S. 447, 458 (1993). The FTC

was therefore required to prove under the “rule of reason” that “the challenged restraint has a substantial anticompetitive effect that harms consumers” and that any “procompetitive efficiencies could be reasonably achieved through less anticompetitive means.” *Ohio v. Am. Express Co.*, 138 S. Ct. 2274, 2284 (2018).

As relevant here, the District Court held that two of Qualcomm’s licensing practices maintain its monopoly in the two markets by unlawfully injuring competition among chipmakers. *First*, finding that Qualcomm had an “antitrust duty to deal,” the District Court held that Qualcomm acts anticompetitively by not granting exhaustive licenses to other modem chip suppliers. A125-A126. The District Court rooted this duty in a finding that by licensing only OEMs, Qualcomm had sacrificed certain short-term profits, in the form of licensing revenue from rival chipmakers. By that, the Court merely meant that Qualcomm could make *some* profit if it licensed other chip suppliers. A125. But the District Court affirmatively (and repeatedly) found that SEP owners, including Qualcomm, make *more* profit (in both the short and long term) through the settled practice of collecting royalties by licensing only OEMs instead. *E.g.*, A120, A125-A126, A129-A133, A194.



*Second*, the District Court held that Qualcomm acts anticompetitively by using its OEM licenses to depress its rivals' revenues from their chip sales—and thereby reduce the rivals' margins and ability to compete. A184. The District Court described a multi-step mechanism. Qualcomm supposedly uses its monopoly power over modem chips to “leverage” OEMs into paying an “excessive” royalty amount for Qualcomm's licenses. That royalty applies to all of the OEMs' phones—including phones that contain modem chips made by Qualcomm's rivals. The District Court characterized the “excessive” portion of the royalty as a “surcharge” on the rivals' chips (or what the FTC called a “tax”). The District Court then opined that OEMs perceive the “all in” cost of a *rival's* chip as the cost of that chip, plus *Qualcomm's* alleged royalty “surcharge.” On that view, the supposed surcharge depresses the prices that the rivals can charge OEMs for their chips, and thus reduces the rivals' margins. Those lower margins, in turn, supposedly inhibit the rivals' ability to invest in new cellular technologies, and ultimately compete. *See* A195-A196.

Rejecting the request of the Department of Justice, *see supra* at 4 the District Court refused to hold separate proceedings on the

appropriate remedy. Instead, it entered a sweeping injunction.

Qualcomm seeks a stay pending appeal of two provisions:

- (1) “Qualcomm must make exhaustive SEP licenses available to modem-chip suppliers”; and
- (2) “Qualcomm must not condition the supply of modem chips on a customer’s patent license status,” and in that respect must “negotiate or renegotiate license terms with customers.”

A228-A230.

The District Court’s injunction also did three other things:

- (1) required Qualcomm to negotiate licenses “in good faith”, A228<sup>5</sup>
- (2) barred Qualcomm from entering into actual or *de facto* “exclusive dealing” arrangements with its OEM customers, A230-A231; and
- (3) barred Qualcomm from interfering with a customer’s ability to communicate with a government agency, A232. The District Court then imposed “compliance and monitoring procedures.” A233-A234.

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<sup>5</sup> A single provision of the injunction both (1) prohibits Qualcomm from conditioning chip sales on an OEM’s licensing status, and in turn (2) requires that Qualcomm negotiate new licenses “in good faith under conditions free from the threat of lack of access to or discriminatory provision of modem chip supply or associated technical support or access to software.” A228. In the event this Court grants Qualcomm its requested stay of the first provision, Qualcomm necessarily would not have to negotiate new licenses in conformity with the second provision. Nevertheless, if the requested stay is granted, Qualcomm recognizes an obligation to negotiate with licensees in good faith.

Qualcomm disagrees with those aspects of the Court’s ruling, which will be addressed in its brief on appeal. But because Qualcomm does not seek to stay those pending appeal, we do not discuss them further in this Motion.<sup>6</sup>

### ARGUMENT

In an action brought by the Government, this Court will grant a stay pending appeal if: (1) the appeal has a “fair prospect of success”; (2) there is a fair probability that the appellant will otherwise be irreparably harmed; and (3) the public interest favors a stay. *See Leiva-Perez v. Holder*, 640 F.3d 962, 970-71 (9th Cir. 2011) (per curiam) (applying *Nken v. Holder*, 556 U.S. 418 (2009)). Under that standard, the District Court’s injunction should be stayed in part.

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<sup>6</sup> Qualcomm’s brief on appeal will also address other aspects of the District Court’s ruling. For example, the Court held, as a contractual matter, that some of Qualcomm’s FRAND obligations require it to license rival chipmakers. A135-A136. No other court has adopted that interpretation of these FRAND obligations, which is moreover contrary to the settled practice followed by all the major cellular SEP holders and mobile standards bodies. *See* A288-A289, A293-A294, A296, A347-A348, A353-A355.

**I. QUALCOMM'S APPEAL RAISES SERIOUS LEGAL QUESTIONS ON WHICH IT HAS A FAIR PROSPECT OF SUCCESS.**

To secure a stay pending appeal, Qualcomm need not prove that it is “more likely than not” to prevail. *Lair v. Bullock*, 697 F.3d 1200, 1204 (9th Cir. 2012). It need only demonstrate that its appeal raises “serious legal questions” or has a “fair prospect of success.” *Leiva-Perez*, 640 F.3d at 971. That standard is easily satisfied here.

**A. There Is A Serious Legal Question Whether Qualcomm Has An Antitrust Duty To Deal With Its Chip Rivals.**

The District Court’s decision imposed on Qualcomm an antitrust duty to deal with its chip rivals. That ruling is based on a significant misreading of *Aspen Skiing Co. v. Aspen Highlands Skiing Corp.*, 472 U.S. 585 (1985), and related precedents. The Supreme Court has recognized the bedrock principle that a business—including a monopolist—is generally entitled to determine with whom it will do business and in what manner. “As a general rule, businesses are free to choose the parties with whom they will deal, as well as the prices, terms, and conditions of that dealing.” *linkLine*, 555 U.S. at 448. Exceptions are “rare” and “limited.” *Id.*

A monopolist specifically has no duty to deal with its rivals, unless its refusal to do so is *solely* motivated by an attempt to harm competition. Even the District Court nominally recognized that rule. A136 (“However, in *Aspen Skiing*, there was sufficient evidence to show that the defendant had refused to deal with the plaintiff *only* because of the defendant’s anticompetitive intent to maintain its monopoly.”). That rigorous standard may be satisfied when the monopolist sacrifices its own short-term profits solely in order to damage its rivals and eliminate competition. Conversely, it *cannot* be satisfied if the allegedly anticompetitive conduct is short-run profit-maximizing behavior. A137 (“The *Aspen Skiing* defendant’s ‘unilateral termination of a voluntary (and thus presumably profitable) course of dealing suggested a willingness to forsake short-term profits to achieve an anticompetitive end.’”) (quoting *Trinko*, 540 U.S. at 409).

The District Court’s fundamental error was its conclusion that Qualcomm acted anticompetitively merely because it could have made *some* money by licensing its rivals. In fact, a monopolist’s change in its course of dealing can be anticompetitive only to the extent the change involves consciously making *less* money. The monopolist sacrifices its

short-term profits for its long-term gain in eliminating competitors. As this Court held in *Aerotec International, Inc. v. Honeywell International, Inc.*, 836 F.3d 1171, 1183-84 (9th Cir. 2016), “there is *only* a duty not to refrain from dealing where the *only* conceivable rationale or purpose is ‘to sacrifice short-term benefits in order to obtain higher profits in the long run *from the exclusion of competition.*” *Accord Novell, Inc. v. Microsoft Corp.*, 731 F.3d 1064, 1075 (10th Cir. 2013) (Gorsuch, J.). *See generally Trinko*, 540 U.S. at 409 (“*Aspen Skiing* is at or near the outer boundary of §2 liability.”).<sup>7</sup>

A dispositive fact in this case is therefore that—as the District Court affirmatively found—Qualcomm recognized that its practice of licensing OEMs alone is more profitable than it would be to license both OEMs and chipmakers instead. A126. Put another way, Qualcomm did not forego but rather *maximized* its short-run profits in choosing to give exhaustive licenses only to OEMs.

Indeed, the District Court’s findings to that effect could not be more clear, emphatic or detailed: “**Qualcomm Now Refuses to License**

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<sup>7</sup> *See also* Christine Wilson, *A Court’s Dangerous Antitrust Overreach*, Wall St. J. (May 28, 2019), <https://www.wsj.com/articles/a-courts-dangerous-antitrust-overreach-11559085055>.

**Rivals Because it is More Lucrative to License Only OEMs.”** A129 (section heading) (emphasis in original); *see also, e.g.*, A120 (“Qualcomm could not agree to patent exhaustion [by licensing chip rivals] because doing so would reduce [Qualcomm’s] licensing revenues, which comprised ‘a very substantial portion of the company’s revenue and profit.’”); A125-A126, A128, A130-A131, A194 (same). The District Court further found that other, *non-monopolist*, licensors do the exact same thing for the exact same reason—demonstrating that this is profit-maximizing behavior, with or without market power and with or without any alleged purpose to create or maintain a monopoly. *See* A131 (“[O]ther SEP licensors like Nokia and Ericsson [which do not sell modem chips] have concluded that licensing only OEMs is more lucrative, and structured their practices accordingly.”). Qualcomm itself applies the same licensing practices, and receives the same royalties, in markets that it is not alleged to have monopolized. *See* A360-A361, A366.

There is accordingly, at the very least, a serious legal question regarding the District Court’s imposition on Qualcomm of an antitrust duty to deal.

**B. There Are Serious Legal Questions Regarding The District Court’s “Surcharge” Theory.**

The District Court separately erred both in asserting that Qualcomm prices its licenses in a way that reduces its chip rivals’ margins, and also in holding that such conduct (if it occurred) is anticompetitive.

The District Court did not assert that Qualcomm acted anticompetitively merely by requiring OEMs to secure patent licenses covering all their phones, including phones that contain chips made by Qualcomm’s rivals. To the contrary, that licensing practice is indisputably appropriate. All phones practice Qualcomm’s patented technologies, regardless of which supplier’s cellular modem chips they contain. *See* A305.

Instead, the District Court’s theory is that the royalties Qualcomm charges to OEMs impose an unreasonable “surcharge” on rivals’ chips—even though Qualcomm charges OEMs the same royalties on a phone using a rival’s chip as it does on a phone using a Qualcomm chip. To get there, the District Court opined that OEMs conceive of an “all in” price of *rivals’* chips that includes an excessive “surcharge” from *Qualcomm’s* royalties. As a consequence, rivals are supposedly unable to charge OEMs



as much as they otherwise could, their margins are diminished, and they are unable to invest and compete with Qualcomm. *See* A184, A195.

The District Court erred because it inexplicably treated the royalties that Qualcomm charges to OEMs as taxes that “raised its rivals’ costs.” A186. Qualcomm’s chip supplier rivals do not pay those royalties; the OEMs do. There is, moreover, no reason that OEMs would regard the royalties they pay *Qualcomm* as attributable to the prices the OEMs pay for *rivals’* chips—any more than they are attributable to the price the OEMs pay for other components such as batteries or screens.

Further, if anything, Qualcomm has lowered, rather than raised, its rivals’ costs. Qualcomm charges its rivals nothing for their use of its SEPs; they bear no royalty costs *at all*. *See supra* at 8-9. Conversely, it is the chip-level licenses contemplated by the District Court’s injunction that would cause chip competitors to bear the cost of royalties.

But the District Court erred as a matter of law even if this case is conceived as one in which Qualcomm’s royalties actually “squeeze” its rivals’ margins. Specifically, if Qualcomm’s royalties prevent rival chip makers from charging higher prices for their chips—for example, because they are constrained by the competitive prices that Qualcomm charges

for its own chips, as the FTC alleged (Compl. at ¶ 94 (Dkt. 1); A371-372)—the Supreme Court’s decision in *linkLine* holds that such conduct does not violate the antitrust laws.

In *linkLine*, the defendant sold a product (DSL internet service) and also held a monopoly on an input necessary for that product (the wiring to customers’ households). The plaintiff—a competing DSL provider—asserted that the defendant had both raised the cost for access to the wiring and also lowered its price for DSL service. The plaintiff sued under the Sherman Act, alleging that the defendant had engaged in an anticompetitive “margin squeeze.” *linkLine*, 555 U.S. at 442. The root of the plaintiff’s margin-squeeze allegation was that “defendants must leave them a ‘fair’ or ‘adequate’ margin” in which to make profit. *Id.* at 449. The Supreme Court held that “no such claim may be brought.” *Id.* at 442.

The Court reasoned that each element of the alleged “squeeze”—the higher price for the input and the lower price for the retail product—must be considered separately. The plaintiff’s objection to the input price failed, because the defendant had no antitrust duty to deal with the plaintiff. *Id.* at 450. The plaintiff’s objection to the low retail price

likewise failed, because the plaintiff had not alleged that the price was anticompetitive under the standards governing such a claim—*i.e.*, that the defendant had engaged in ‘predatory pricing.’” *Id.* at 451. Accordingly, the plaintiff’s claim failed as a matter of law. *Id.*

This Court faithfully applied *linkLine* in *John Doe 1 v. Abbott Laboratories*, 571 F.3d 930, 931 (9th Cir. 2009), holding that a defendant does not unlawfully leverage a monopoly by reducing its rivals’ margins, “absent an antitrust refusal to deal (or some other exclusionary practice) in the monopoly market or below-cost pricing in the second market.” In that case, the defendant both (1) held a monopoly on a product available at wholesale (a patented drug), and (2) competed in the market for a different product (that drug combined with another). The defendant raised the patented drug’s wholesale cost, thereby reducing its rivals’ margins and making it uneconomical for them to sell the drug combination. This Court held that, “[h]owever labeled,” that “conduct is the functional equivalent of the price squeeze the Court found unobjectionable in *linkLine*.” *Id.* at 935.

*linkLine* and *John Doe I* preclude the District Court’s holding here that Qualcomm’s license prices are anticompetitive because they squeeze

its rivals' margins. As discussed *supra*, Qualcomm does not have an antitrust duty to license its competitors. Further, the FTC did not allege, and the District Court did not find, that Qualcomm's chip prices were predatory. Here, as in *John Doe 1*, the antitrust theory is necessarily that the defendant "put[] the squeeze on competing producers . . . that depend on" the defendant's patented product. *Id.* Absent a duty to deal or "below cost pricing," the claim fails as a matter of law, "however labeled." *Id.*

At the very least, there are serious legal questions regarding the District Court's holding that Qualcomm acted anticompetitively by supposedly reducing its rivals' margins.

## **II. ABSENT A STAY, QUALCOMM WILL BE IRREPARABLY HARMED.**

The party seeking a stay of an injunction pending appeal must demonstrate a probability that it will otherwise suffer irreparable harm. *Lair*, 697 F.3d at 1214-15. That standard is easily met with respect to the two provisions of the District Court's injunction at issue here.

This Court has repeatedly granted a stay pending appeal in similar circumstances.<sup>8</sup> There is no basis to depart from that practice here.

---

<sup>8</sup> See, e.g., Order, *San Diego Comic Convention v. Dan Farr Prods.*, No. 18-56221 (9th Cir. Oct. 16, 2018), Dkt. 17 (stay of injunction

*First*, the Order targets the heart of Qualcomm’s business structure—its relationships with *both* rival chipmakers and OEM customers—imposing a fundamental change in the way Qualcomm has always operated since its founding. A377-A382. For example, the injunction requires Qualcomm to license component suppliers exhaustively—something Qualcomm has never done,<sup>9</sup> that none of the major cellular SEP licensors do outside of cross-licenses, and that would

---

requiring deregistering internet domains); Order, *Chamber of Commerce v. City of Seattle*, No. 17-35640 (9th Cir. Sept. 8, 2017), Dkt. 24 (stay of order requiring businesses to enter into new collective bargaining agreements); Order, *O’Bannon v. NCAA*, Nos. 14-16601 & 14-17068 (9th Cir. July 31, 2015), Dkt. 111 (stay of injunction allowing colleges to make payments to student athletes); *Cal. Pharmacists Ass’n v Maxwell-Jolly*, 563 F.3d 847, 853 (9th Cir. 2009) (stay of Medi-Cal reimbursement rate reductions where lost revenue could not later be recouped); *Am. Trucking Ass’ns v. City of Los Angeles*, 559 F.3d 1046, 1058 (9th Cir. 2009) (finding irreparable harm where district court’s order would “disrupt and change the whole nature of [movant’s] business”).

<sup>9</sup> Qualcomm did previously have some agreements with rival chipmakers, but those were explicitly non-exhaustive—*i.e.*, they did not interfere with Qualcomm’s right to require that OEMs using the rivals’ chips secure a license. *See* A386-A387. Indeed, for that reason, the FTC itself maintained that the agreements were not licenses at all. FTC’s Proposed Findings of Fact and Conclusions of Law at ¶¶ 254-255 (Dkt. 966).

Qualcomm’s unwillingness to grant exhaustive licenses to other chip suppliers is no obstacle to their ability to compete. Qualcomm does not assert its SEPs against chip suppliers, because it recoups its patent rights from OEMs at the device level instead.

force upon Qualcomm patent exhaustion issues that would undermine its existing handset-level licensing program. Because “major disruption of a business can be as harmful as its termination and thereby constitute irreparable injury,” *Mahroom v. Best W. Int’l, Inc.*, 2009 WL 248262, at \*3 (N.D. Cal. Feb. 2, 2009), these restructuring effects constitute irreparable harm justifying a stay, *Am. Trucking Ass’ns*, 559 F.3d at 1058 (finding irreparable harm where order would “disrupt and change the whole nature of [movant’s] business in ways that most likely cannot be compensated”).

*Second*, the injunction specifically requires Qualcomm to “negotiate or renegotiate license terms with [OEM] customers”—a mandate that the Order acknowledges “does not merely proscribe future Qualcomm conduct, and will require Qualcomm to renegotiate many [existing] licenses.” A228-A230. The court-ordered renegotiations will deny Qualcomm the benefit of the existing deals it struck with OEMs, many of which reflect months or even years of hard-fought negotiations. When existing contracts will be disrupted pending appeal, a stay is warranted. *See NCAA v. Bd. of Regents of the Univ. of Okla.*, 463 U.S. 1311, 1313-14

(1983) (staying, pending appeal, antitrust injunction that would void network contracts to broadcast college football games).

*Third*, and relatedly, the injunction seeks to reduce the royalties that Qualcomm receives from OEMs, but if this Court reverses the District Court's judgment, Qualcomm will not be able to recover any revenues it loses in the interim, or the further revenues it later loses under agreements made while the appeal was pending. Those revenues come from third-party customers, which are not parties to the judgment and thus will maintain that they are under no obligation to provide reimbursement.

Even if this Court eventually reverses, future licensing negotiations will be influenced heavily by less-favorable royalty terms set in the interim under the cloud of the injunction. Further, once a license agreement is concluded, other OEMs will demand that their own licensing deals match the more advantageous terms granted to the new licensees. All those license agreements will remain in place for years.

*Fourth*, the injunction specifically compels Qualcomm to sell chips to OEMs that do not have a license to Qualcomm's patents. If this Court reverses the Order, Qualcomm could not undo any exhaustion claims

caused by such sales—*i.e.*, claims that Qualcomm’s sale of the chips foreclose Qualcomm from asserting any patents substantially embodied by the chips. Because Qualcomm sells its chips at prices that do not include the value of its cellular SEPs, this would extinguish Qualcomm’s right to obtain licensing revenue for those patents.

Importantly, merely expediting this appeal is no substitute for a stay. As reflected in the attached sworn Declaration of John Han, *see* A238, and confirmed by the sworn Declarations that Qualcomm submitted in the District Court, *see* A241 & A246, the irreparable harms that the injunction imposes on Qualcomm will occur before this Court can dispose of this case, even on an expedited basis. Several important Qualcomm license agreements expire before the end of 2019, and negotiations over license renewals and extensions have already been disrupted by the District Court’s injunction. A238-A239. At least two licensees already have raised the District Court’s ruling to challenge the licensing terms (and specifically the royalty rates) proposed by Qualcomm and to claim that they are incompatible with Qualcomm’s FRAND obligations. A239. Others have indicated that they intend to raise the issue in the event this Court denies a stay of the relevant



provisions of the injunction. A239. One licensee now relies on the order to justify a preexisting breach of its current license agreement. A239, A243. At least one OEM has stated that Qualcomm must license a chip rival, in order to permit the OEM to buy the rival's chips with Qualcomm's patents exhausted, while seriously considering ceasing paying royalties to Qualcomm under its current agreement. A238.

### **III. THE PUBLIC INTEREST FAVORS GRANTING A STAY.**

In a case brought by the Government, the only remaining inquiry is whether the public interest favors a stay. *See Leiva-Perez*, 640 F.3d at 970 (no separate inquiry is made into the government's interests). In addition, where the stay relates to broad injunctive relief in an important segment of the economy, there inevitably is a substantial overlap between the Court's view of the merits of the case and the public interest. Here, for the reasons discussed in Part I, there are deep legal flaws with the District Court's relevant liability findings. The public interest accordingly favors a stay.

The vibrant, robust nature of the cellular industry specifically counsels in favor of a stay and refutes the FTC's contrary view that it is essential that injunctive relief take effect immediately.

The particular practices that are the subject of this stay application have been in place for decades, during which time the industry has been “dynamic,” products have “improve[d] significantly,” and Qualcomm has produced “admirable” innovations. A392, A397, A401. The FTC’s own expert testified that competition in the allegedly monopolized modem chip markets has grown in recent years; the FTC offered no evidence suggesting this trend would change if the injunction is stayed pending appeal. *See* A405-A406; *see also* A411-A413, A417-A419.

By contrast, allowing the injunction to take effect pending appeal threatens serious public harms. The Department of Justice specifically cautioned the District Court that an injunction in this case “may cause harm to competition and consumers.” A255. It stressed that “the obligations courts impose often have far-reaching effects and can reshape entire industries.” *Id.*

In addition to its effect on the cellular industry generally, the Government has recognized that Qualcomm’s technological leadership is vital to the “national security of the United States,” which could be harmed as a result of a change to Qualcomm’s business model. A252-A253; *cf. Winter v. Nat. Res. Def. Council, Inc.*, 555 U.S. 7, 23-26 (2008)

(national security concerns may outweigh other equitable considerations). The District Court should not be allowed to compel the restructuring of this industry and thereby harm innovation on the basis of erroneous applications of antitrust law before this Court has had an opportunity for review. A stay thus would advance, rather than impair, the public interest.

### CONCLUSION

This Court should grant a partial stay of the District Court's injunction.

July 8, 2019

Respectfully submitted,

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## **CERTIFICATE OF COMPLIANCE**

This document complies with the type-volume limitation of Circuit Rules 27-1(1)(d) and 32-3(2) because it contains 5,593 words, excluding the parts of the brief exempted by Federal Rule of Appellate Procedure 32(f) and Circuit Rule 27-1(1)(d).

Pursuant to Federal Rule of Appellate Procedure 27(d)(1)(E), this document complies with the typeface requirements of Federal Rule of Appellate Procedure 32(a)(5) and the type style requirements of Federal Rule of Appellate Procedure 32(a)(6) because it has been prepared in a proportionally spaced typeface using Microsoft Word 2016 Century Schoolbook 14-point font.

July 8, 2019

/s/ Thomas C. Goldstein  
Thomas C. Goldstein

**CERTIFICATE OF SERVICE**

I hereby certify that I electronically filed the foregoing with the Clerk of the Court for the United States Court of Appeals for the Ninth Circuit by using the appellate CM/ECF system on July 8, 2019. All participants in the case are registered CM/ECF users, and service will be accomplished by the appellate CM/ECF system.

/s/ Thomas C. Goldstein  
Thomas C. Goldstein

No. 19-16122

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**United States Court of Appeals for the Ninth Circuit**

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FEDERAL TRADE COMMISSION,  
*Plaintiff – Appellee,*

v.

QUALCOMM INCORPORATED, A DELAWARE CORPORATION,  
*Defendant – Appellant.*

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Appeal from the U.S. District Court  
for the Northern District of California  
The Honorable Lucy H. Koh (No. 5:17-cv-00220-LHK)

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**APPENDIX  
VOLUME II**

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UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA  
SAN JOSE DIVISION

FEDERAL TRADE COMMISSION,  
Plaintiff,  
v.  
QUALCOMM INCORPORATED,  
Defendant.

Case No. 17-CV-00220-LHK

**ORDER DENYING QUALCOMM'S  
MOTION FOR STAY PENDING  
APPEAL**

Re: Dkt. No. 1495

The Court SUSTAINS the Federal Trade Commission's objections to Qualcomm's Exhibits C, D, and E that Qualcomm filed with Qualcomm's reply brief. Exhibits C, D, and E are offered in support of a new argument raised for the first time in Qualcomm's reply brief. *See Zamani v. Carnes*, 491 F.3d 990, 997 (9th Cir. 2007) ("The district court need not consider arguments raised for the first time in a reply brief.").

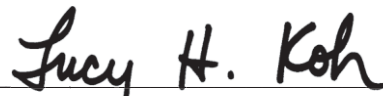
In addition, the Court GRANTS the FTC's motion to strike Exhibit F. Exhibit F is not an exhibit from the January 2019 11-day bench trial in the instant case or part of the discovery or record in the instant case. Instead, Exhibit F is the entire 31-page slide deck for Qualcomm's April 16, 2019 opening statement for a jury trial in an entirely different case in the Southern District of California. Although Qualcomm's reply brief cites only one page from the entire slide

deck, Qualcomm improperly seeks to insert the entire slide deck into this record. Moreover, the single slide that Qualcomm's reply brief cites is not responsive to any argument in the FTC's or amici's briefs. Thus, the Court need not consider it. *Zamani*, 491 F.3d at 997. Nor has Qualcomm authenticated the document that the slide purports to excerpt. Accordingly, Exhibit F is stricken from the record.

Having reviewed the parties' briefing on Qualcomm's motion for stay pending appeal, ECF Nos. 1495, 1500, 1506; amicus briefs in opposition to Qualcomm's motion submitted by LG Electronics, Inc. and ACT, the App Association, ECF Nos. 1501-1, 1503-2; the arguments and evidence from the 11-day trial; the Court's 233-page Findings of Fact and Conclusions of Law, ECF No. 1490; the record in this case; and the relevant law, the Court hereby DENIES Qualcomm's motion for stay pending appeal.

**IT IS SO ORDERED.**

Dated: July 3, 2019



LUCY H. KOH  
United States District Judge

**DECLARATION OF JOHN HAN**

I, John Han, declare and state that:

1. I am Senior Vice President and General Manager of Qualcomm Technology Licensing (“QTL”), an operating segment of Defendant Qualcomm Incorporated (“Qualcomm”). I submit this declaration in support of Qualcomm’s Motion for Stay Pending Appeal. I have personal knowledge of the facts set forth herein. If called upon as a witness in this action, I could and would testify competently thereto.

2. I am responsible for the general management of Qualcomm’s patent licensing business. In addition to my general management and oversight responsibilities, I am responsible for QTL’s licensing group and have personally participated in patent licensing negotiations on behalf of Qualcomm for the past two and a half years. From 2000 to 2016, I worked at Ericsson, where I became vice president of licensing and was the head of the licensing group. Over the past 20 years I have been involved in numerous license negotiations involving grants of rights under cellular essential patents to device makers throughout the world.

3. I have reviewed the May 28, 2019 declaration of Alex Rogers in support of Qualcomm’s Motion to Stay (“Rogers Declaration”) in the District Court. I also submitted a declaration on June 18, 2019 in support of Qualcomm’s Reply in support of that Motion to Stay. Both prior declarations are attached to this declaration. The statements in both prior declarations remain true today.

4. This declaration is intended to supplement the statements made in the Rogers Declaration and in my June 18, 2019 declaration based on recent developments, which show how the harms identified in the prior declarations are beginning to unfold while Qualcomm’s stay motion is pending.

5. In a negotiation during the first week of July, a top-ten handset licensee that is based in China asserted that, in light of the Order, it is seriously considering ceasing all royalty payments under the existing license agreement. The same licensee has also indicated that it intends to ask its other chip supplier to seek an exhaustive license from Qualcomm so that Qualcomm’s patents are exhausted through the licensee’s procurement of components from that competitor.



1       6. A number of other licensees have also separately communicated to me that they are aware  
2 of Qualcomm's application for a stay and are therefore not seeking to renegotiate their  
3 agreements at this time, but that if the Court does not stay the Order pending appeal, they intend  
4 to ask Qualcomm to renegotiate their existing license agreements. All of these licensees entered  
5 into new license agreements or amended their existing license agreements with Qualcomm within  
6 the last two years, during the pendency of the district court case between the FTC and Qualcomm  
7 and prior to the Order.

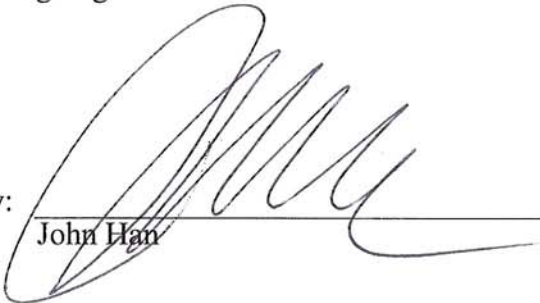
8       7. Since my June 18, 2019 declaration, two other licensees, during negotiations over a new  
9 license agreement, have raised the Order to challenge the licensing terms (and specifically the  
10 royalty rates) proposed by Qualcomm and to claim they are incompatible with Qualcomm's  
11 FRAND obligations. One of these licensees is Huawei; it is a matter of public record that Huawei  
12 has stopped paying full royalties to Qualcomm as required under the terms of its existing license  
13 agreement while negotiating for a new agreement. The other licensee manufactures devices as an  
14 original design manufacturer ("ODM") for branded companies and was one of the Apple ODMs  
15 involved in the recent litigation in the Southern District of California. That ODM settled and  
16 released its FRAND claims as to its existing license agreement before the Order issued.

17       8. A number of Qualcomm's existing license agreements (including with four of QTL's top  
18 ten licensees by revenue) will expire by the end of the calendar year. Some of these agreements  
19 are subject to renewal provisions, including dispute resolution provisions in the event that a new  
20 agreement cannot be negotiated. While Qualcomm anticipates that it will negotiate new license  
21 agreements with these licensees regardless of the outcome of Qualcomm's stay application, the  
22 question of whether a stay issues will clearly affect the course of the negotiations and the conduct  
23 of these licensees during the negotiations. Two of these licensees are referenced above in  
24 paragraphs 5 and 7.

1 I declare under penalty of perjury that the foregoing is true and correct. Executed this  
2 day, July 8, 2019, in San Diego, California.

3  
4  
5 By:

John Han





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15 UNITED STATES DISTRICT COURT  
16 NORTHERN DISTRICT OF CALIFORNIA  
17 SAN JOSE DIVISION

18 FEDERAL TRADE COMMISSION,  
19

20 Plaintiff,

21 v.

22 QUALCOMM INCORPORATED, a  
Delaware Corporation,

23 Defendant.  
24  
25  
26  
27  
28

Case No. 5:17-cv-00220-LHK-NMC

**DECLARATION OF JOHN HAN IN  
SUPPORT OF QUALCOMM'S REPLY IN  
SUPPORT OF MOTION FOR STAY  
PENDING APPEAL**

Dept: Courtroom 8, 4<sup>th</sup> Floor  
Judge: Hon. Lucy H. Koh

**DECLARATION OF JOHN HAN**

I, John Han, declare and state that:

1. I am Senior Vice President and General Manager of Qualcomm Technology Licensing (“QTL”), an operating segment of Defendant Qualcomm Incorporated (“Qualcomm”). I submit this declaration in support of Qualcomm’s Reply in Support of its Motion to Stay. I have personal knowledge of the facts set forth herein. If called upon as a witness in this action, I could and would testify competently thereto.

2. I am responsible for the general management of Qualcomm’s intellectual property licensing business. In addition to my general management and oversight responsibilities, I am responsible for QTL’s licensing group and have personally participated in patent licensing negotiations on behalf of Qualcomm for the past two and a half years. From 2000 to 2016, I worked at Ericsson, where I became vice president of licensing and was the head of the licensing group. Over the past 20 years I have been involved in numerous license negotiations involving grants of rights under cellular essential patents to device makers throughout the world.

3. I understand that the Court issued an Order that requires Qualcomm to negotiate or renegotiate many existing and new license agreements, and that the Court stated that Qualcomm’s existing royalty rates are unreasonably high.

4. I understand that the FTC has asserted that Qualcomm could avoid the harm resulting from being required to enter into new license agreements in the shadow of the Order by negotiating short-term or interim license agreements during the appeal period—the length of which, I understand, is uncertain—that would contain contractual provisions mitigating or eliminating any long-term adverse consequences to Qualcomm. The FTC’s view is impractical. Interim agreements are the exception, not a common occurrence. In my experience, licensees would not agree to enter into such agreements, and certainly would not agree to provisions that they view as contrary to their interests.

5. Licensees generally want long-term stability and certainty, and will seek to lock in the terms that are acceptable to them. Accordingly, my experience from past licensing negotiations is that licensees would see no reason to terminate the existing license arrangement unless the terms



1 of a new agreement are substantially more favorable to them, particularly as to reduced royalties.  
2 If Qualcomm is compelled to accept new agreements on terms that are worse for Qualcomm and  
3 more favorable to licensees, the licensees will then seek to lock in these favorable terms for a  
4 long period. Qualcomm would have no unilateral ability to insist that licensees enter into interim  
5 or short-term agreements, and certainly would not be able to make licensees accept agreements  
6 that would revert to the terms of Qualcomm's current license agreements if Qualcomm prevails  
7 on appeal. On the contrary, based on my experience, licensees are unlikely to accept any  
8 provisions that would increase their royalties, or that could result in the obligation to pay  
9 retroactively additional royalties for devices that already have been manufactured and sold,  
10 contingent on a future event outside their control, such as the Court of Appeals' decision on  
11 Qualcomm's appeal.

12 6. If the Order is overturned or modified on appeal, there is no practical way for Qualcomm  
13 to abandon the newly negotiated or renegotiated agreements and revert to the terms of the  
14 currently existing agreements and also apply those reverted terms retroactively.

15 7. Even if Qualcomm prevails on its appeal, licensees will point to concessions given under  
16 the Order, including reduced royalties, as a benchmark for Qualcomm's licensing negotiations  
17 going forward. This could significantly damage Qualcomm's ability to obtain fair royalties for its  
18 patents in future negotiations.

19 8. Unless the Order is stayed, the Order will create substantial uncertainty for Qualcomm's  
20 licensing program also in that existing licensees may act opportunistically and either cease paying  
21 or reduce the amount of royalties paid while demanding concessions from Qualcomm on new  
22 license terms. For example, Huawei, which has an active license agreement with Qualcomm,  
23 stopped paying royalties to Qualcomm for a period of time while negotiating for a new license  
24 agreement, resulting in significant lost royalty revenue to date.

25 9. I have reviewed the Declaration of JongSang Lee, dated June 11, 2019, which I  
26 understand accompanied an amicus brief filed by LG Electronics ("LGE"). I disagree with a  
27 number of assertions in Mr. Lee's declaration.

28 10. I am personally familiar with the recent licensing negotiations between Qualcomm and

1 LGE. I have led the negotiations for Qualcomm. I have met with representatives of LGE ten or  
2 more times and have participated in numerous additional telephone calls with them. The  
3 negotiations for LGE have been led by Saeng Gyu Jeon and Young Han Song. Mr. Jeon is  
4 Executive Vice President of LGE and the head of LGE's IP Center, and Mr. Song reports to Mr.  
5 Jeon. It is my understanding that all of LGE's patent licensing responsibilities fall within Mr.  
6 Jeon's IP Center. However, I have never met Mr. Lee and he has not participated in any of our  
7 patent licensing negotiation meetings or conference calls.

8 11. Qualcomm has been in negotiations with LGE for a long-term license agreement for over  
9 a year.

10 12. LGE's previous license agreement with Qualcomm enabled LGE to elect to terminate the  
11 agreement as of December 31, 2018. LGE elected to terminate. During negotiations in the  
12 summer and fall of 2018, Qualcomm and LGE exchanged representative standard essential patent  
13 lists and claim charts, and the parties met to discuss those claim charts.

14 13. In December 2018, after extensively negotiating the terms of a new license agreement,  
15 Qualcomm and LGE reached a mutual understanding of the material terms and came close to  
16 executing a memorandum of understanding for a long-term license agreement with an effective  
17 date of January 1, 2019.

18 14. Qualcomm and LGE did not ultimately execute a new license agreement, and LGE  
19 became unlicensed. Qualcomm and LGE then entered into an interim license agreement while  
20 discussions continued regarding a long-term agreement.

21 15. Throughout negotiations with LGE, up until the present, Qualcomm never disrupted  
22 LGE's chip supply or took any action to withhold software or technical support.

23 16. Qualcomm negotiated the interim agreement with LGE while a long-term agreement  
24 remained under discussion. In the past, Qualcomm has negotiated a handful of short-term or  
25 interim agreements for a similar purpose. None of Qualcomm's short-term or interim agreements  
26 are similar to the type proposed by the FTC in its opposition to Qualcomm's stay motion.

27 17. During negotiations in 2018, Qualcomm offered to enter into binding arbitration with  
28 LGE to resolve the terms of a FRAND license. In doing so, Qualcomm expressly guaranteed to

1 LGE that it would continue to supply LGE with chips during arbitration. I set out this offer in  
2 writing in a letter to Mr. Jeon dated December 30, 2018. LGE declined Qualcomm's offer of a  
3 binding FRAND determination.

4  
5 I declare under penalty of perjury that the foregoing is true and correct. Executed this  
6 day, June 18, 2019, in San Diego, California.

7  
8 By: 

9 John Han



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UNITED STATES DISTRICT COURT  
 NORTHERN DISTRICT OF CALIFORNIA  
 SAN JOSE DIVISION

FEDERAL TRADE COMMISSION,

Plaintiff,

v.

QUALCOMM INCORPORATED, a  
 Delaware Corporation,

Defendant.

Case No. 5:17-cv-00220-LHK-NMC

**DECLARATION OF ALEX ROGERS IN  
 SUPPORT OF MOTION TO STAY**

Dept: Courtroom 8, 4<sup>th</sup> Floor  
 Judge: Hon. Lucy H. Koh

Date Filed: January 17, 2017

Trial Date: January 4, 2019

**DECLARATION OF ALEX ROGERS**

I, Alex Rogers, declare and state that:

1. I am President of Qualcomm Technology Licensing (“QTL”), an operating segment of Defendant Qualcomm Incorporated (“Qualcomm”). I submit this declaration in support of Qualcomm’s Motion to Stay. I have personal knowledge of the facts set forth herein. If called upon as a witness in this action, I could and would testify competently thereto.

2. I am responsible for the general management of Qualcomm’s intellectual property licensing business. In addition to my general management and oversight responsibilities, I have personally participated in intellectual property licensing negotiations on behalf of Qualcomm.

3. I have reviewed the Court’s Findings of Fact and Conclusions of Law (“Order”) and Judgment issued on May 21, 2019.

4. Qualcomm has been licensing for approximately three decades. The Court’s Order requires Qualcomm to license its intellectual property in a way that it has not done before: exhaustively licensing Qualcomm’s cellular standard-essential patents (“SEPs”) for the purpose of making and selling components such as cellular modem chips.

5. Should the Court’s Order not be stayed, Qualcomm could be required to enter into a number of new licenses that would differ significantly from the licenses entered into by Qualcomm in the past, as well as from those entered into by the other major cellular SEP holders of which I am aware. Compelling exhaustive licensing of cellular standard essential patents at the component level will create a multi-level licensing regime in which Qualcomm and other cellular SEP holders need to license some patents to component makers and other patents to handset makers. Significant inefficiencies and hurdles to concluding license agreements will result. Component makers will contend that only certain SEPs, and even certain claims within particular patents, are practiced at the component level and, therefore, a component supplier need only license a subset of SEP claims while OEMs (e.g., handset makers) are responsible for the remainder. OEMs will contend that all or nearly all cellular SEP claims are practiced or exhausted at the component level and that Qualcomm must, under this Order, first license at the component level. Such circumstances will cause delay and disagreement among multiple parties



as Qualcomm seeks to license the same portfolio of patents on an exhaustive basis to participants on different levels of the supply chain. Delays, inefficiencies and disputes will undermine Qualcomm's ability to obtain fair value for its intellectual property relating to cellular standards.

6. The Order also requires Qualcomm to sell modem chips to OEMs that are or become unlicensed. If Qualcomm is forced to sell modem chips to unlicensed OEMs while the Order is reviewed on appeal, those unlicensed OEMs will claim that such sales exhaust Qualcomm's right to seek royalties for Qualcomm's handset-level and system-level innovation reflected in its cellular SEPs. Qualcomm will not be able to unwind such sales, even if the Order is modified or reversed on appeal.

7. The Court also ordered Qualcomm to "negotiate or renegotiate license terms with customers"—an injunction that "does not merely proscribe future Qualcomm conduct, and will require Qualcomm to renegotiate many licenses." Order at 229.

Renegotiation of Qualcomm's license agreements would be a very significant undertaking. Any renegotiation of Qualcomm's existing licenses would be held in the injunction's shadow, including the Court's findings and conclusions that are stated in the Order but subject to appeal. This means that Qualcomm will be faced with demands that it accept licensing terms that it would not otherwise accede to if the Court's view of the facts or the law were deemed incorrect and the Order overturned by a court of appeals.

8. It would be extremely difficult, if not impossible, to unwind new license agreements that Qualcomm was required to negotiate in the shadow of the injunction and Order, even if the injunction and Order are overturned or modified on appeal. Qualcomm's license agreements typically last for terms of five years or more. Once Qualcomm enters into new multi-year agreements following this Order, simply reverting back to the prior agreements is not realistic. Qualcomm will likely have to wait years to negotiate new agreements, and licenses entered into pursuant to the Order and injunction will remain in place even if they contain unfavorable terms that would not have otherwise occurred but for the Order.

9. I am personally aware of situations in which licensees have stopped royalty payments to Qualcomm based on prior events similar to this Order. For example, when the Chinese National



1 Development and Reform Commission (“NDRC”) issued an order requiring Qualcomm to  
2 renegotiate licenses that included Chinese patents and were for devices made and sold for use in  
3 China, significant licensees stopped paying royalties while they renegotiated agreements.

4 10. I am generally aware of Qualcomm’s market capitalization. Qualcomm’s market  
5 capitalization has dropped approximately 15% (roughly \$14 billion) following the Order in just a  
6 few trading days following its issuance.

7 11. Attached hereto as Exhibit A is a true and correct copy of a letter from the Committee on  
8 Foreign Investment in the United States, which reflects the judgment of that Committee that a  
9 reduction in the amount of R&D spending on the technology developed by Qualcomm and in  
10 Qualcomm’s influence on standard-setting could be detrimental “to the national security of the  
11 United States.”

12 12. For the reasons stated above, should the injunction and Order motivate licensees to stop  
13 paying, as has happened in the past, should a multi-level licensing regime undermine  
14 Qualcomm’s ability to efficiently and effectively license its intellectual property, or should the  
15 factual and legal conclusions set out in the Order undermine Qualcomm’s ability to negotiate or  
16 renegotiate agreements for fair value of its intellectual property, then Qualcomm’s ability to  
17 conduct fundamental research and development underlying cellular technology in the 5G era will  
18 be impaired.

19 I declare under penalty of perjury that the foregoing is true and correct. Executed on this  
20 28th day of May, 2019, in San Diego, California.

21  
22 By: 

23 Alex Rogers  
24  
25  
26  
27  
28

## **Exhibit A**



DEPARTMENT OF THE TREASURY  
WASHINGTON, D.C.

March 5, 2018

Mark Plotkin  
Covington & Burling LLP  
One CityCenter  
850 10<sup>th</sup> Street, N.W.  
Washington, DC 20001

Theodore Kassinger  
O'Melveny & Myers LLP  
1625 Eye Street, N.W.  
Washington, DC 20006

Re: CFIUS Case 18-036: Broadcom Limited (Singapore)/Qualcomm Incorporated

Dear Mr. Plotkin and Mr. Kassinger:

On January 29, 2018, Qualcomm Incorporated ("Qualcomm") filed a unilateral notice with the Committee on Foreign Investment in the United States ("CFIUS"), seeking review of Broadcom Limited's ("Broadcom") solicitation of proxies for the purposes of electing a majority of the directors of Qualcomm. On March 4, 2018, the U.S. Department of Treasury ("Treasury") filed an agency notice pursuant to 31 C.F.R. § 800.401(c), broadening the scope of review to cover the proposed hostile takeover of Qualcomm.

During the time between Qualcomm's unilateral filing and Treasury's agency filing, CFIUS has been communicating with both parties to obtain additional information to inform its decision on the appropriate path forward in regards to this matter. It was during this time, and as a result of these communications and additional information, that CFIUS has come to believe that Broadcom's successful hostile takeover attempt of Qualcomm, including the related stock purchase, proxy contest for the election of six directors to Qualcomm's Board as proposed and selected by Broadcom, Proposed Agreement and Plan of Merger, and any other potential merger between Broadcom and Qualcomm, could pose a risk to the national security of the United States.

CFIUS's assessment thus far includes its review of the information submitted by Qualcomm in its unilateral voluntary notice on January 29, 2018, the parties' responses to questions posed about the potential transaction during the interim period, and the information provided in our multiple phone calls, emails, and meetings with representatives of both Qualcomm and Broadcom. In addition, our assessment includes the review of letters to CFIUS submitted by Broadcom on February 21, 2018, and March 2, 2018.

As with every transaction filed with CFIUS, in conducting its analysis of whether the transaction poses national security risk, CFIUS has been assessing the potential for exploitation or



compromise of assets subject to the filing. This analysis includes an assessment of the intent and capability the acquirer, including by an actor through the acquirer, to cause harm (the “threat”), and the nature of the U.S. business and potential susceptibility to impairment of U.S. national security (the “vulnerability”) should exploitation or compromise occur. National security risk is a function of the interaction between threat and vulnerability, and the potential consequences of that interaction for U.S. national security.

CFIUS has identified potential national security concerns that warrant a full investigation of the proposed transaction. Articulation of the potential national security concerns, in significant part, is classified. To the extent that some of the potential national security concerns can be described in an unclassified manner, CFIUS notes that they relate to the risks associated with Broadcom’s relationships with third party foreign entities and the national security effects of Broadcom’s business intentions with respect to Qualcomm. CFIUS further notes the following:

***Qualcomm leadership in technology and standard setting***

Qualcomm is a global leader in the development and commercialization of foundational technologies and products used in mobile devices and other wireless products, including network equipment, broadband gateway equipment, and consumer electronic devices. Qualcomm led the mobile revolution in digital communications technologies that underlie 2G Code Division Multiple Access (“CDMA”), Wideband CDMA for 3G, and Orthogonal Frequency Division Multiple Access 4G LTE mobile networks.

Qualcomm’s technological success and innovation is driven by its unmatched expertise and research and development (“R&D”) expenditure. Among semiconductor companies, Qualcomm typically ranks second (after Intel) in R&D expenditure. This expertise and R&D expenditure, in turn, drive U.S. leadership in key-standard setting bodies, and Qualcomm has been a leading participant in standards setting for 3G and 4G. These qualities have positioned Qualcomm as the current leading company in 5G technology development and standard setting.

***National security risks related to weakening of Qualcomm’s technological leadership***

At the same time, Qualcomm has become well-known to, and trusted by, the U.S. government. Having a well-known and trusted company hold the dominant role that Qualcomm does in the U.S. telecommunications infrastructure provides significant confidence in the integrity of such infrastructure as it relates to national security.

Reduction in Qualcomm’s long-term technological competitiveness and influence in standard setting would significantly impact U.S. national security. This is in large part because a weakening of Qualcomm’s position would leave an opening for China to expand its influence on the 5G standard-setting process. Chinese companies, including Huawei, have increased their engagement in 5G standardization working groups as part of their efforts to build out a 5G technology. For example, Huawei has increased its R&D expenditures and owns about 10 percent of 5G essential patents. While the United States remains dominant in the standards-setting space currently, China would likely compete robustly to fill any void left by Qualcomm as a result of this hostile takeover. Given well-known U.S. national security concerns about



Huawei and other Chinese telecommunications companies, a shift to Chinese dominance in 5G would have substantial negative national security consequences for the United States.

CFIUS, during the investigation period, will continue to assess the likelihood that acquisition of Qualcomm by Broadcom could result in a weakening of Qualcomm's position in maintaining its long-term technological competitiveness. Specifically, Broadcom's statements indicate that it is looking to take a "private equity"-style direction if it acquires Qualcomm, which means reducing long-term investment, such as R&D, and focusing on short term profitability. Broadcom has lined up \$106 billion of debt financing to support the Qualcomm acquisition, which would be the largest corporate acquisition loan on record. This debt load could increase pressure for short-term profitability, potentially to the detriment of longer term investments. The volume of recent acquisitions by Broadcom has increased the company's profits and market capitalization, but these acquisitions have been followed by reductions in R&D investment. According to press reports, in the last dozen years, Broadcom has spent six times as much on acquisition as on R&D, and former employees allege that it underinvests in long-term product development.

Qualcomm's current business model is based upon licensing of patented Qualcomm technologies; Qualcomm believes that Broadcom will change that licensing methodology. Broadcom's CEO Hock Tan recently criticized Qualcomm's licensing structure, saying he would reset the business model, which he called "broken." However, Mr. Tan did not elaborate on how he would change the existing model, which currently relies on the licensing business to fund the company's large R&D expenditures. Changes to Qualcomm's business model would likely negatively impact the core R&D expenditures of national security concern.

CFIUS, during the investigation period, will continue to assess the likelihood that acquisition of Qualcomm by Broadcom could result in a weakening of Qualcomm's technological leadership in a manner that is detrimental to U.S. national security.

#### ***National security risks related to disruption of trusted supply relationship***

U.S. national security also benefits from Qualcomm's capabilities as a supplier of products. For example, Department of Defense ("DOD") national security programs rely on continued access to Qualcomm products. Qualcomm holds a facility security clearance and performs on a range of contracts for United States government customers with national security responsibilities. Qualcomm currently holds active sole source classified prime contracts with DOD. Additionally, Qualcomm currently holds unclassified prime contracts with DOD. Qualcomm's partnership with the United States government encompasses efforts to address cybersecurity in the next generation of wireless, 5G, and the Internet of Things. Limitation or cessation of supply of Qualcomm products or services to the U.S. government could have a detrimental impact on national security.

CFIUS, during the investigation period, will continue to assess the likelihood that acquisition of Qualcomm by Broadcom could result in changes that affect the security and integrity of supply of goods and services to the U.S. government in a manner that is detrimental to U.S. national security.

***Interim Order***

As outlined above, CFIUS believes that this transaction could pose a risk to the national security of the United States. CFIUS has determined that the interim measures described in the Interim Order shared with you earlier are necessary to mitigate the national security risks discussed above arising from and in connection with the proposed transaction. Moreover, CFIUS has determined that these interim measures are necessary to provide CFIUS adequate opportunity to further investigate the proposed transaction and evaluate and assess the associated national security risk.

CFIUS has determined, in an exercise of its national security expertise and judgment, that the measures described in the Interim Order are the most appropriate means at this stage, under the circumstances of this transaction, to preserve the status quo between Broadcom and Qualcomm in a manner that minimizes interference with the ongoing operations of both companies insofar as reasonably possible, while satisfying CFIUS's obligation to mitigate the national security risks discussed here and conduct further investigation.

If you have questions regarding this letter, please contact Jessica Henson at (202) 622-4269.

Sincerely,



Aimen N. Mir  
Deputy Assistant Secretary  
Investment Security

ANDREW C. FINCH  
*Principal Deputy Assistant Attorney General*

DAVID L. ANDERSON (CABN 149604)  
*United States Attorney*

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Attorneys for the United States

UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA  
SAN JOSE DIVISION

FEDERAL TRADE COMMISSION,  
Plaintiff,

v.

QUALCOMM INCORPORATED,  
Defendant.

Case No. 5:17-cv-00220-LHK

**STATEMENT OF INTEREST OF THE  
UNITED STATES OF AMERICA**



## I. INTRODUCTION

The United States respectfully submits this Statement of Interest, pursuant to 28 U.S.C. § 517, to advise the Court of its interests in this matter with respect to the enforcement of the antitrust laws and the protection of competition and innovation for the benefit of consumers.<sup>1</sup>

The United States respectfully submits that, in the event that the Court finds liability on any of the FTC's claims, the Court should order additional briefing and hold a hearing on issues related to a remedy.<sup>2</sup> The United States further submits that, in fashioning a remedy, the Court should take careful consideration of all relevant issues and effects of such a remedy. That includes the principle that, although a proper remedy must restore any competition lost due to actions found to have violated the antitrust laws, a remedy should work as little injury as possible to other public policies. The United States underscores, however, that it takes no position at this time on the underlying merits of the FTC's claims or on any other issues related to the Court's pending determination of liability.

## II. BACKGROUND

The Federal Trade Commission filed this action on January 17, 2017, alleging that various practices of Qualcomm related to its licensing of patents essential for technological standards involving cellular telephones and its sales of baseband processors (or "chips") violated Section 5 of the FTC Act, which is largely premised on legal standards incorporated from

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<sup>1</sup> Pursuant to 28 U.S.C. § 517, "[t]he Solicitor General, or any officer of the Department of Justice, may be sent by the Attorney General to any State or district in the United States to attend to the interests of the United States in a suit pending in any court of the United States, or in a court of a State, or to attend to any other interest of the United States." The filing of a Statement of Interest pursuant to § 517 does not constitute intervention and does not make the United States a party to the proceeding.

<sup>2</sup> Nothing in this Statement of Interest is intended to apply to a case where a defendant does not dispute the appropriate remedy and agrees to a proposed consent judgment with the government. *See* 15 U.S.C. § 16(b)–(h).



1 Section 2 of the Sherman Act.<sup>3</sup> See Complaint ¶ 147.

2 In the parties' Joint Pretrial Statement, the FTC requested that if Qualcomm is found  
3 liable for violating the FTC Act, it should be ordered (among other things) to renegotiate its  
4 existing licensing agreements—a request that does not appear to be limited to those licenses  
5 affected by Qualcomm's allegedly anticompetitive practices in the relevant markets. See Joint  
6 Pretrial Statement at 3. The United States understands that the now-completed trial itself  
7 focused almost exclusively on issues related to liability, and the Court has not requested post-  
8 trial briefing or scheduled a post-trial hearing on remedy. The Court did, however, indicate a  
9 willingness to entertain briefing and potentially discovery on the issue of remedy if it finds for  
10 the FTC on liability.<sup>4</sup>

### 11 III. ARGUMENT

#### 12 A. If the Court Finds Liability, an Evidentiary Hearing Is Necessary Before the 13 Imposition of a Remedy

14 If the Court finds that Qualcomm has violated the FTC Act, it should permit additional  
15 briefing and schedule an evidentiary hearing to resolve any disputes regarding the scope and  
16 impact of injunctive relief. "It is a cardinal principle of our system of justice that factual disputes  
17 must be heard in open court and resolved through trial-like evidentiary proceedings." *United*  
18 *States v. Microsoft Corp.*, 253 F.3d 34, 101 (D.C. Cir. 2001). In antitrust trials, as in other civil  
19 cases, therefore, "[a] party has the right to judicial resolution of disputed facts not just as to the  
20 liability phase, but also as to appropriate relief." *Id.* In *Microsoft*, the D.C. Circuit reversed the

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21  
22 <sup>3</sup> Even though the FTC does not directly enforce the Sherman Act, courts have held that a  
23 violation of the Sherman Act constitutes an unlawful "unfair method of competition" under  
24 Section 5 of the FTC Act, 15 U.S.C. § 45. See, e.g., *FTC v. Cement Inst.*, 333 U.S. 683, 691–93  
(1948). The United States takes no position on the contours of the FTC Act's prohibition.

<sup>4</sup> See Oct. 24, 2018 Hr'g Tr. at 38:23–40:4.

1 district court's order of divestiture in a government case alleging violations of Section 2 of the  
2 Sherman Act because, among other independent reasons, the court failed to hold an evidentiary  
3 hearing despite Microsoft's request for one. The court of appeals explained that "a trial on  
4 liability . . . does not substitute for a relief-specific evidentiary hearing unless the matter of relief  
5 was part of the trial on liability." *Id.* There are "exceptions to the requirement for an evidentiary  
6 hearing only when facts are not in dispute or when parties waive an evidentiary hearing." *Idaho*  
7 *Watersheds Project v. Hahn*, 307 F.3d 815, 830 (9th Cir. 2002); *see also Chicago Bridge & Iron*  
8 *Co. N.V. v. FTC*, 534 F.3d 410, 442 (5th Cir. 2008) (hearing generally required where "new  
9 evidence was not presented at trial or important factual issues were not resolved by the trier of  
10 fact in respect to the remedy").

11 Holding a hearing on the appropriate remedy is vital in monopolization cases because the  
12 obligations courts impose often have far-reaching effects and can re-shape entire industries.<sup>5</sup> As  
13 one previous head of the Antitrust Division put it, "Section 2 remedies should not crush a tiger's  
14 spirit; they should train, not tame. Among other things, this means that equitable remedies should  
15 not interfere with the defendant's innovation incentives going forward." Thomas O. Barnett,  
16 *Section 2 Remedies: What to Do After Catching the Tiger by the Tail*, 76 Antitrust L.J. 31, 35  
17 (2009). The effects of an antitrust remedy, however, are not always intended; if overly broad, a  
18 remedy ultimately may cause harm to competition and consumers. *See* 3 Philip E. Areeda &  
19 Herbert Hovenkamp, *Antitrust Law* ¶ 653e, at 152 (4th ed. 2016) ("Wholly apart from fairness, . .  
20 . a policy [of far reaching equitable sanctions] would undesirably deter firms from engaging in  
21 superficially restrictive conduct that is in fact reasonably necessary to competition on the  
22

---

23 <sup>5</sup> By contrast, a separate hearing on remedies may be unnecessary in a typical challenge to an  
24 unconsummated merger under Section 7 of the Clayton Act, 15 U.S.C. § 18, where the  
predominant effect of an injunction would be to preserve the status quo ante.

merits.”); *see also* William F. Baxter, *Separation of Powers, Prosecutorial Discretion, and the ‘Common Law’ Nature of Antitrust Law*, 60 Tex. L. Rev. 661, 699 (1982) (discussing how antitrust judgments can “unreasonably restrain competition”).

Indeed, there is a plausible prospect that an overly broad remedy in this case could reduce competition and innovation in markets for 5G technology and downstream applications that rely on that technology.<sup>6</sup> Such an outcome could exceed the appropriate scope of an equitable antitrust remedy. Moreover, it has the distinct potential to harm rather than help competition.

For these reasons, the United States respectfully submits that this Court should order additional briefing and hold an evidentiary hearing, focused on these and other remedial issues.

#### **B. Antitrust Remedies Should Do as Little Harm as Possible to Other Public Policies**

It is black-letter antitrust law that, upon a finding of liability, “[a]ntitrust relief should unfetter a market from anticompetitive conduct and pry open to competition a market that has been closed by defendants’ illegal restraints.” *Ford Motor Co. v. United States*, 405 U.S. 562, 577–78 (1972). Although antitrust law violators “must expect some fencing in” from a remedy that fully restores competition, *Otter Tail Power Co. v. United States*, 410 U.S. 366, 381 (1973), “[c]ourts are not authorized in civil proceedings to punish antitrust violators.” *United States v. E. I. du Pont de Nemours & Co.*, 366 U.S. 316, 326 (1961). For the same reasons, antitrust

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<sup>6</sup> Internal Apple documents that recently became public describe how, in an effort to “[r]educe Apple’s net royalty to Qualcomm,” Apple planned to “[h]urt Qualcomm financially” and “[p]ut Qualcomm’s licensing model at risk,” including by filing lawsuits raising claims similar to the FTC’s claims in this case. Reed Albergotti, *Apple Said Qualcomm’s Tech Was No Good. But in Private Communications, It Was ‘the Best.’*, Wash. Post, Apr. 19, 2019, <https://www.washingtonpost.com/technology/2019/04/19/apple-said-qualcomms-tech-was-no-good-private-communications-it-was-best>. One commentator has observed that these documents “potentially reveal[] that Apple was engaging in a bad faith argument both in front of antitrust enforcers as well as the legal courts about the actual value and nature of Qualcomm’s patented innovation.” *Id.*

1 remedies do not properly redress consumer harms that stem from factors other than a loss of  
2 competition.

3 Nevertheless, because antitrust relief is equitable in nature, a court must take into account  
4 various public and private concerns beyond competition when crafting a remedy. In *United*  
5 *States v. E. I. du Pont de Nemours & Co.*, the Supreme Court explained that a court in fashioning  
6 an antitrust remedy must be guided by “three dominant influences”: (1) “[t]he duty of giving  
7 complete and efficacious effect to the prohibitions of the statute;” (2) “the accomplishing of this  
8 result with as little injury as possible to the interest of the general public;” and (3) “a proper  
9 regard for the vast interests of private property.” 366 U.S. at 327–28. Accordingly, although a  
10 court typically may not balance other public policies against antitrust law’s express goal of  
11 protecting competition, the remedial measures it imposes to fully restore competition must do as  
12 little harm as possible to various public and private interests. *See also Hartford-Empire Co. v.*  
13 *United States*, 323 U.S. 386, 409 (1945), *supplemented*, 324 U.S. 570 (1945) (in government suit  
14 for injunction, “we may not impose penalties in the guise of preventing future violations”).

15 Because an overly broad remedy could result in reduced innovation, with the potential to  
16 harm American consumers, this Court should hold a hearing and order additional briefing to  
17 determine a proper remedy that protects competition while working minimal harm to public and  
18 private interests.

#### 19 **IV. CONCLUSION**

20 For the foregoing reasons, the United States respectfully submits that, if this Court finds  
21 liability on the FTC’s claims, it should hold a hearing and request additional briefing, so that it  
22 carefully may consider how to fashion a proper antitrust remedy that fully restores any  
23  
24

1 competition as a result of the challenged practices, without causing harm to competition,  
2 innovation, and consumers.

3  
4 DATED: May 2, 2019

Respectfully submitted,

5 ANDREW C. FINCH  
6 *Principal Deputy Assistant Attorney General*  
7 DAVID L. ANDERSON  
8 *United States Attorney*  
9 MICHAEL F. MURRAY  
10 *Deputy Assistant Attorney General*  
11 WILLIAM J. RINNER  
12 *Chief of Staff and Senior Counsel*  
13 DANIEL E. HAAR  
14 *Acting Chief, Competition Policy &*  
15 *Advocacy Section*  
16 U.S. Department of Justice  
17 Antitrust Division

18 /s/ Andrew C. Finch  
19 ANDREW C. FINCH  
20  
21  
22  
23  
24

UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA  
SAN JOSE DIVISION

FEDERAL TRADE COMMISSION, ) C-17-00220 LHK  
)  
PLAINTIFF, ) SAN JOSE, CALIFORNIA  
)  
VS. ) JANUARY 18, 2019  
)  
QUALCOMM INCORPORATED, A ) VOLUME 7  
DELAWARE CORPORATION, )  
) PAGES 1343-1584  
DEFENDANT. ) **SEALED PAGES** 1473-1477,  
1570-1573

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TRANSCRIPT OF PROCEEDINGS  
BEFORE THE HONORABLE LUCY H. KOH  
UNITED STATES DISTRICT JUDGE

A P P E A R A N C E S:

FOR THE PLAINTIFF: FEDERAL TRADE COMMISSION  
BY: JENNIFER MILICI  
DANIEL J. MATHESON  
WESLEY G. CARSON  
KENT COX  
NATHANIEL M. HOPKIN  
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APPEARANCES CONTINUED ON NEXT PAGE

OFFICIAL COURT REPORTERS: LEE-ANNE SHORTRIDGE, CSR, CRR  
CERTIFICATE NUMBER 9595  
IRENE RODRIGUEZ, CSR, CRR, RMR  
CERTIFICATE NUMBER 8074

PROCEEDINGS RECORDED BY MECHANICAL STENOGRAPHY  
TRANSCRIPT PRODUCED WITH COMPUTER

A262

1 Q. WHY IS THAT?

2 A. BECAUSE QUALCOMM IS A SYSTEM INNOVATOR. WE ARE VERY OFTEN  
3 KNOWN FOR CREATING TECHNOLOGY IN CELLULAR SPACE. WE ACTUALLY  
4 CONDUCT VERY BROAD R&D AND TECHNOLOGY DEVELOPMENT IN MANY  
5 DIFFERENT AREAS.

6 AND ALL THOSE TECHNOLOGY ARE RELEVANT, AND THEY'RE VERY  
7 IMPORTANT FOR THE OVERALL WORKING TOGETHER OF THE SYSTEM FOR A  
8 SMARTPHONE USER. SO WE TRY TO PRESENT ALL THE INFORMATION  
9 ABOUT OUR PATENTS BECAUSE THEY ARE DELIVERING VALUE TO OUR  
10 LICENSEES TOGETHER.

11 Q. AND WHEN YOU USE THE TERM "VALUE," DO YOU MEAN TECHNICAL  
12 VALUE?

13 A. YES, I DO.

14 Q. COULD WE PLEASE TURN TO THE NEXT PAGE, WHICH IS BATES --  
15 ENDING IN BATES 236?

16 A. YES.

17 Q. WHAT WERE YOU INTENDING TO CONVEY WHEN YOU CREATED THIS  
18 SLIDE?

19 A. THIS IS A CHART DEMONSTRATING QUALCOMM'S PATENT PORTFOLIO  
20 GROWTH OVER TIME. SO WE TRIED TO PURSUE A LONGER PERIOD OF  
21 TIME OF PATENT GROWTH.

22 THE REASON WE SHOW THIS CHART IS WE ARE NOT LICENSED IN A  
23 PATENT PORTFOLIO THAT EXPIRES OVER TIME. WHAT WE ARE CREATING  
24 HERE IS QUALCOMM HAS A LOT OF ONGOING R&D THAT KEEP GENERATING  
25 NEW I.P. THAT KEEP GETTING ADDED TO OUR PORTFOLIO.

1 SO THAT'S SHOWN IN THE CHARTS TO SHOW HOW THE PATENT  
2 PORTFOLIO KEEP GROWING OVER TIME. THE REALLY IMPORTANT THING  
3 IS WHEN WE NEGOTIATE WITH LICENSEE, WE ARE TRYING TO GENERALLY  
4 NEGOTIATE A LONGER TERM DEAL THAT'S FIVE TO TEN YEARS LONG.

5 SO I WANTED THE LICENSEE TO HAVE A CLEAR UNDERSTANDING OF  
6 HOW QUALCOMM KEEP ON GETTING INVENTIONS INTO THE PORTFOLIO AND,  
7 THEREFORE, ACCESS TO THE TECHNOLOGY.

8 Q. AND WHAT IS THE GROWTH RATE OF THE PORTFOLIO?

9 A. AS INDICATED ON THIS CHART AND THROUGH THE LAST 20-PLUS  
10 YEARS, WE HAVE BEEN GROWING THE PORTFOLIO AT 30-PLUS PERCENT OF  
11 THE COMPOUND ANNUAL GROWTH.

12 Q. DO YOU REFRESH THIS PRESENTATION FROM TIME TO TIME?

13 A. YEAH, WE DO, YES.

14 Q. AS OF MARCH OF 2018, APPROXIMATELY HOW MANY PATENTS DID  
15 QUALCOMM HAVE IN ITS PORTFOLIO?

16 A. WE -- ABOUT MARCH OF 2018, WE HAD ABOUT 140,000 GRANTED  
17 PATENTS AND PENDING APPLICATIONS.

18 AND BY THE WAY, IT IS ALSO IMPORTANT THAT WHEN WE REFRESH  
19 THE CHART, AS I REFERRED TO EARLIER, WE ALSO REMOVE EXPIRED  
20 PATENTS FROM THE CHART.

21 Q. ABOUT HOW QUICKLY IS QUALCOMM OBTAINING PATENTS?

22 A. WE ACTUALLY OBTAINING A LOT OF PATENTS EVERY DAY. FOR  
23 EXAMPLE, ON AVERAGE, WE GET ABOUT 35 GRANTED PATENTS NET  
24 ADDITION INTO OUR PORTFOLIO PER DAY WORLDWIDE.

25 THIS IS, AGAIN, IT'S COUNTING ON THE PATENTS WE ARE



1 GETTING GRANTED RECENTLY, NEWLY GRANTED PATENTS, AND  
2 SUBTRACTING THE PATENT THAT HAS EXPIRED.

3 Q. COULD WE PLEASE TURN TO THE PAGE ENDING IN BATES 241.

4 MR. CHEN, THIS SLIDE IS A LITTLE BIT BUSY. WHAT WERE YOU  
5 PRESENTING IN CONNECTION WITH THIS SLIDE?

6 A. YES, I DO APOLOGIZE FOR THIS. THIS IS A BUSY CHART. HAD  
7 I KNOWN THIS CHART WOULD BE SHOWN IN COURT, I PROBABLY WOULD  
8 HAVE TRIED TO MAKE IT SIMPLER AND NICER AT THE TIME.

9 BUT WHAT WE ARE TRYING TO SHOW ON THIS CHART IS  
10 STRAIGHTFORWARD. I WAS TRYING TO SHOW THREE POINTS ON THIS  
11 CHART.

12 ONE, IT'S THE TIMING OF QUALCOMM'S R&D RESEARCH;  
13 THE SECOND POINT I WAS TRYING TO SHOW ON THE CHART IS  
14 REALLY HOW THE DIFFERENT GENERATION OF TECHNOLOGY, OF CELLULAR  
15 TECHNOLOGY ARE BUILT ON TOP OF EACH OTHER;

16 THE THIRD POINT I'M TRYING TO SHOW IS WITHIN EACH  
17 GENERATION, HOW THE TECHNOLOGY KEEP ON GETTING, EVOLVING,  
18 GETTING NEW VALUE ADDED THROUGH EVERY RELEASE, R-E-L-E-A-S-E.  
19 I DO APOLOGIZE.

20 Q. ARE THERE ANY COMMON CHARACTERISTICS IN QUALCOMM'S  
21 STANDARD ESSENTIAL PATENTS?

22 A. YES. THERE'S A -- AT THE HIGHEST LEVEL, QUALCOMM'S  
23 STANDARD ESSENTIAL PATENT GENERALLY HAVE EARLIER PRIORITY DATES  
24 AND THEY TEND TO COVER MORE, MANY DIFFERENT FOUNDATIONAL,  
25 IMPORTANT FEATURES OF THE STANDARD.

1           AND OUR PATENTS ARE GENERALLY FILED FAIRLY EXTENSIVELY IN  
2       TERMS OF JURISDICTIONS, AS WELL AS TECHNOLOGY AREAS.

3           Q.    NOW, WHEN YOU WERE TALKING ABOUT THIS CHART, YOU FIRST  
4       TALKED ABOUT THE TIMING.

5                   WHAT DID YOU MEAN WHEN YOU WERE ILLUSTRATING TIMING ON  
6       THIS CHART?

7           A.    YEAH.   SO I TRIED TO PICK TWO DIFFERENT COLORS  
8       REPRESENTING WHEN R&D HAPPENS AND WHEN THE TECHNOLOGY GETTING  
9       ACCEPTED INTO THE STANDARD.

10                   SO I USED THE GOLDEN COLOR REPRESENTS WHEN QUALCOMM R&D  
11       STARTED, AND THE WHITE BOXES ON THE CHART REPRESENTS WHEN THOSE  
12       TECHNOLOGIES GETTING ACCEPTED INTO STANDARD.

13                   SO AS YOU CAN TELL, ALMOST IN EVERY CASE FOR 2G, 3G, 4G,  
14       AND 5G TECHNOLOGY DEVELOPMENT GENERALLY, OUR R&D RESEARCH  
15       STARTS FROM FIVE TO TEN YEARS BEFORE THOSE TECHNOLOGY GETTING  
16       ADOPTED INTO THE STANDARD.

17           Q.    WHY DO THESE TIMELINES OVERLAP FOR THE STANDARDS?

18           A.    YEAH, THAT'S A -- SO SOMETIMES PEOPLE HAVE THE  
19       MISPERCEPTION TO SAY YOU DEVELOP ONE GENERATION TECHNOLOGY AND  
20       THEN YOU CLOSE THE DEVELOPMENT, YOU MOVE ON TO THE NEXT ONE.  
21       THAT'S JUST NOT HOW IT WORKS, BECAUSE IN THE CELLULAR SPACE  
22       HERE, THERE'S MULTIPLE GENERATIONAL TECHNOLOGY THAT ARE IN USE  
23       AT THE SAME TIME.

24                   SO THAT'S WHY A LOT OF PHONES SUPPORT MULTIPLE MODES OF  
25       DIFFERENT GENERATIONAL TECHNOLOGY.

1           SO IN THIS CASE HERE, AS YOU CAN TELL, WITH THE 3G, 4G,  
2           FOR EXAMPLE, THAT TIMELINE OVERLAPS BECAUSE QUALCOMM KEEP ON  
3           CREATING NEW TECHNOLOGIES AND WE TRIED TO, TO ADD THOSE  
4           TECHNOLOGIES INTO, YOU KNOW, DIFFERENT GENERATIONAL STANDARDS,  
5           AND NOT ONLY THE NEXT GENERATION, BUT WE ALSO TRY TO IMPROVE  
6           THE CURRENT GENERATIONAL TECHNOLOGY STANDARD BECAUSE IT'S VERY  
7           IMPORTANT FOR THE CARRIER, THE CONSUMER WHO HAS SPENT -- THE  
8           CARRIER SPENT A LOT OF MONEY DEPLOYING THE NETWORK, SO THEY  
9           WANTED A LONGER RUNWAY OF THE NETWORK INVESTMENT BEFORE THEY  
10          CAN IMPORT THE NEXT GENERATION.

11           SO WE KEEP ON INTRODUCING TECHNOLOGY IN PARALLEL INTO  
12          EXISTING GENERATIONAL TECHNOLOGY, AS WELL AS INTO THE NEXT ONE,  
13          AND THIS IS THE WAY FOR US TO DELIVER VALUE TO CUSTOMER.

14           I'M SORRY, FOR VALUE, I MEAN TECHNOLOGY PERFORMANCE.

15          Q.   YOU MENTIONED THAT THE STANDARDS BUILD ON EACH OTHER WHEN  
16          DESCRIBING THE STACKING.   WHAT DID YOU MEAN BY THAT?

17           MR. HOPKIN:   OBJECTION, YOUR HONOR.   THIS IS BEYOND  
18          THE SCOPE OF MR. CHEN'S 30(B)(6) DEPOSITION TESTIMONY.

19           THE COURT:   SUSTAINED.

20           MR. ZEMBEK:   YOUR HONOR, I DON'T BELIEVE IT IS BEYOND  
21          THE SCOPE OF THE TESTIMONY.   HE ACTUALLY TESTIFIED AS TO --

22           THE COURT:   WELL, WHY DON'T YOU JUST POINT ME TO THE  
23          DEPOSITION TRANSCRIPT.

24           MR. ZEMBEK:   I WILL, YOUR HONOR.

25           THE COURT:   AND I'D LIKE TO SEE THE 30(B)(6) NOTICE,

1 PLEASE.

2 DO YOU HAVE IT?

3 MR. ZEMBEK: I DO NOT HAVE A COPY OF THE NOTICE.

4 THE COURT: LET ME ASK IF THE PLAINTIFF DOES? DO YOU  
5 HAVE A COPY OF THE NOTICE? WHAT TOPIC IS COVERED?

6 MR. ZEMBEK: IF YOU TURN TO -- IF WE COULD, MR. DAHM,  
7 PLEASE TURN TO --

8 THE COURT: DO YOU HAVE A COPY OF THE NOTICE? COULD  
9 YOU PLEASE GIVE THAT TO MS. GARCIA?

10 MR. HOPKIN: YES, I DO. IT'S -- I ALSO HAVE -- I'VE  
11 HIGHLIGHTED --

12 THE COURT: IF IT'S HIGHLIGHTED, I DON'T WANT IT.  
13 DOES ANYONE HAVE A CLEAN ONE?

14 MR. ZEMBEK: I CAN MOVE ON, YOUR HONOR.

15 THE COURT: OKAY. ALL RIGHT. GO AHEAD, PLEASE.

16 BY MR. ZEMBEK:

17 Q. COULD WE PLEASE TURN FORWARD TO THE SLIDES THAT ARE ON  
18 BATES 242 AND 243.

19 MR. CHEN, WHAT WERE YOU INTENDING TO CONVEY ON THESE  
20 PARTICULAR SLIDES?

21 A. YEAH. THESE SLIDES ARE SOME OF THE EXAMPLE AREA OF  
22 QUALCOMM'S FUNDAMENTAL ENGINEERING CREATIONS AND ALSO PATENTS  
23 IN THOSE FUNDAMENTAL FEATURES IN THE 3G SYSTEM.

24 IN THIS CASE, WCDMA SYSTEM.

25 Q. AND WHAT ARE CORE WCDMA FEATURES?

1           A.    THOSE ARE SOME OF THE EXAMPLES OF QUALCOMM'S CREATION, AND  
2           ALSO QUALCOMM PATENTS IN, FOR EXAMPLE, CDMA CHANNELIZATION.  
3           CDMA CHANNELIZATION BASICALLY MEANS THE WAVEFORM THAT USES IN  
4           THOSE SYSTEMS, AS WELL AS MANY OF THE IMPORTANT FUNDAMENTAL  
5           FEATURES FOR THE WIRELESS SYSTEM.

6           Q.    AND YOU USED THE WORD "CONTRIBUTION" ON THESE SLIDES.  
7           WHAT DO YOU MEAN BY THAT?

8           A.    CONTRIBUTION ON THIS SLIDE JUST MEANS THE QUALCOMM  
9           TECHNOLOGY CREATION, AS WELL AS OUR PATENTS COVERING THOSE  
10          AREA, AND WE ARE SHARING THEM THROUGH OUR LICENSING PROGRAM  
11          WITH OUR LICENSEES.

12          Q.    DO YOU PRESENT ON ANY 3G STANDARDS OTHER THAN WCDMA?

13          A.    YES, I DO.

14          Q.    WHICH ONES?

15          A.    FOR EXAMPLE, VERY OFTEN I PRESENT INFORMATION ON THE CDMA  
16          2000, SOMETIMES IT'S ALSO REFERRED TO AS CDMA EV-DO STANDARD.

17          Q.    IS THERE ANY OVERLAP ON THE PATENTS THAT YOU PRESENT  
18          REGARDING WCDMA AND EV-DO?

19          A.    THERE'S A LOT OF OVERLAPPING. AS A MATTER OF FACT, ALMOST  
20          ALL OF THESE AREAS THAT'S PRESENTED ON THE CHART APPLIES  
21          EQUALLY TO WCDMA AND CDMA 2000 SYSTEMS, AND WE HAVE MANY  
22          PATENTS COVERING BOTH OF THEM.

23          Q.    COULD YOU PLEASE TURN FORWARD TO THE SLIDES ENDING IN  
24          BATES 258 AND 259.

25               MR. CHEN, WHAT WERE YOU PRESENTING ON THESE PARTICULAR

1 SLIDES?

2 A. THOSE ARE THE QUALCOMM EXAMPLE CONTRIBUTION -- EXAMPLE  
3 CREATIONS OF TECHNOLOGY AND PATENTS IN 4G, WHICH IS ALSO  
4 REFERRED TO AS LTE SYSTEMS.

5 Q. HAS QUALCOMM BEEN AWARDED PATENTS IN THESE AREAS?

6 A. YES, WE HAVE, MANY, MANY PATENTS COVERING ALL THESE AREAS.

7 Q. WHAT ARE THE CORE LTE FEATURES?

8 A. SO UNDER THE CORE LTE FEATURES, I WAS GIVING A FEW  
9 EXAMPLES. FOR EXAMPLE, I WAS GIVING EXAMPLE OF UPLINK.  
10 COMMUNICATION PROTOCOL BY UPLINKING THE CELLULAR SYSTEM, I MEAN  
11 HOW THE CELL PHONES ARE SENDING DATA FROM THE PHONE TO THE  
12 NETWORK.

13 THE NEXT ONE IS DOWNLINK COMMUNICATION, WHICH MEANS HOW  
14 THE CELL PHONE IS DOWNLOADING TRAFFIC FROM THE NETWORK TO THE  
15 HANDSET.

16 SO THOSE TWO, THINK OF CARRIER SINGLE CARRIER FDMA AND THE  
17 OFDMA ARE, I'M SORRY FOR THE ACRONYMS, AND THEY ARE JUST THE  
18 DEFINITION OF THE WAVEFORM IN THE 4G SYSTEM. THEY'RE VERY  
19 IMPORTANT.

20 AND THEN THE NEXT TWO ARE JUST THE NETWORK ARCHITECTURE OF  
21 4G. THAT'S VERY FUNDAMENTAL TO THE SYSTEM.

22 Q. WHAT DID YOU MEAN BY HIGHER DATA RATE TECHNOLOGIES?

23 A. SO WHAT DIFFERENTIATES 3G FROM 4G? THEY ARE BOTH ABOUT  
24 DATA. BUT 4G IS REALLY ABOUT VERY FAST DATA.

25 SO QUALCOMM MADE MANY CONTRIBUTIONS IMPROVING THE DATA

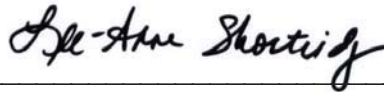
CERTIFICATE OF REPORTERS

WE, THE UNDERSIGNED OFFICIAL COURT REPORTERS OF THE  
UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF  
CALIFORNIA, 280 SOUTH FIRST STREET, SAN JOSE, CALIFORNIA, DO  
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THAT THE FOREGOING TRANSCRIPT, CERTIFICATE INCLUSIVE, IS  
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IRENE RODRIGUEZ, CSR, CRR  
CERTIFICATE NUMBER 8076



LEE-ANNE SHORTRIDGE, CSR, CRR  
CERTIFICATE NUMBER 9595

DATED: JANUARY 18, 2019

A271

UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA  
SAN JOSE DIVISION

FEDERAL TRADE COMMISSION, ) C-17-00220 LHK  
)  
PLAINTIFF, ) SAN JOSE, CALIFORNIA  
)  
VS. ) JANUARY 15, 2019  
)  
QUALCOMM INCORPORATED, A ) VOLUME 6  
DELAWARE CORPORATION, )  
) PAGES 1112-1342  
DEFENDANT. )  
\_\_\_\_\_ )

TRANSCRIPT OF PROCEEDINGS  
BEFORE THE HONORABLE LUCY H. KOH  
UNITED STATES DISTRICT JUDGE

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BY: JENNIFER MILICI  
DANIEL J. MATHESON  
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IRENE RODRIGUEZ, CSR, CRR, RMR  
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PROCEEDINGS RECORDED BY MECHANICAL STENOGRAPHY  
TRANSCRIPT PRODUCED WITH COMPUTER

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**DIRECT EXAMINATION**

BY MR. VAN NEST:

Q. DR. JACOBS, WOULD YOU PLEASE INTRODUCE YOURSELF TO THE COURT?

A. YES. I'M IRWIN JACOBS. I'M THE FOUNDING CHAIRMAN AND CEO EMERITUS OF QUALCOMM.

Q. CAN YOU BRIEFLY EXPLAIN YOUR ROLES AT QUALCOMM OVER THE YEARS, DR. JACOBS?

A. WELL, I WAS ONE OF THE EIGHT FOUNDERS OF THE COMPANY, VERY INSTRUMENTAL IN BEING ABLE TO SELECT WHICH PROJECTS WE WORKED ON OVER THE YEARS, HAD GREAT EXCITEMENT IN GROWING THE COMPANY FROM SOMETHING SMALL TO SOMETHING VERY SUBSTANTIAL, AND IN PARTICULAR, COMING UP WITH SOME INITIAL IDEAS THAT BECAME VERY USEFUL TO PEOPLE WORLDWIDE.

SO A VERY SATISFACTORY CAREER.

Q. WAS THERE A POINT IN TIME WHEN YOU WERE THE CEO OF QUALCOMM?

A. YES, I WAS CEO FROM THE BEGINNING AND UP THROUGH 2000 -- THROUGH THE 20TH ANNIVERSARY IN 2005.

Q. OKAY. AND THEN DID YOU REMAIN ON THE BOARD FOR SOME PERIOD AFTER THAT?

A. I WAS CHAIRMAN FOR ANOTHER TWO AND A HALF YEARS, I BELIEVE, AND THEN ON THE BOARD FOR ANOTHER COUPLE OF YEARS, AND THEN I DID SERVE ALSO AS A GUEST FOR ANOTHER COUPLE OF YEARS.

Q. OKAY. SO YOU'VE BEEN GONE FROM THE BOARD NOW FOR SEVERAL

**A273**

1 YEARS; IS THAT RIGHT?

2 A. THAT IS CORRECT.

3 Q. COULD YOU TELL THE COURT BRIEFLY WHAT YOUR EDUCATIONAL  
4 BACKGROUND IS?

5 A. I HAVE A BACHELOR'S IN ELECTRICAL ENGINEERING FROM CORNELL  
6 UNIVERSITY; A MASTER'S IN SCIENCE AND A SCIENCE DOCTORATE FROM  
7 M.I.T.

8 Q. AND WHAT WAS YOUR PROFESSIONAL BACKGROUND BEFORE YOU  
9 FOUNDED QUALCOMM?

10 A. AFTER GETTING MY DOCTORATE, I REMAINED AT M.I.T. ON THE  
11 FACULTY FOR SEVERAL YEARS, AND I WAS THE FIRST -- CO-AUTHORED  
12 THE FIRST TEXTBOOK ON DIGITAL COMMUNICATIONS.

13 WE DECIDED TO MOVE TO CALIFORNIA, AND I JOINED AT THE  
14 FACULTY AT THE UNIVERSITY OF CALIFORNIA SAN DIEGO, WAS ON THE  
15 FACULTY THERE FOR SIX YEARS, AND THEN ENTERED BUSINESS.

16 Q. WHEN WAS QUALCOMM FOUNDED?

17 A. ON JULY 1ST, 1985.

18 Q. AND WHERE DOES THE NAME QUALCOMM COME FROM?

19 A. WELL, WE ALWAYS REFER TO QUALITY IN OUR COMMUNICATIONS, SO  
20 WE PUT THE TWO TOGETHER FOR QUALCOMM.

21 Q. AND CAN YOU TELL US, WHAT WAS THE COMPANY'S MISSION AT THE  
22 OUTSET? WHAT WAS YOUR BASIC GAME PLAN?

23 A. WELL, FIRST OF ALL, WE KNEW THAT IT WOULD BE -- WE DIDN'T  
24 HAVE A PRODUCT, WE DIDN'T HAVE A PARTICULAR BUSINESS PLAN, BUT  
25 WE KNEW THERE WOULD BE A LOT OF EXCITEMENT IN THE WIRELESS

1 AREA, IN THE DIGITAL AREA, AND WE ALWAYS HAD THE IDEA THAT WE  
2 DON'T WANT TO DO SOMETHING JUST A LITTLE BETTER THAN THINGS  
3 THAT EXISTED. WE WERE ALWAYS LOOKING FOR A MAJOR STEP, TAKE A  
4 SYSTEMS APPROACH, LOOK FOR CAPABILITIES THAT WE MIGHT BE ABLE  
5 TO BRING THROUGH, TAKE A RISK, AND IF SUCCESSFUL, HAVE  
6 SOMETHING THAT COULD BE USEFUL.

7 Q. AND WHEN YOU SAY "SYSTEMS APPROACH," "TAKE A SYSTEMS  
8 APPROACH," WHAT ARE YOU TALKING ABOUT?

9 A. WELL, TAKING A LITTLE BIT BROADER THAN LOOKING AT A SINGLE  
10 COMPONENT OR A SINGLE CAPABILITY, BUT THERE'S USUALLY SOME  
11 PROBLEMS, TAKE A STEP BACK, TAKE A LARGE LOOK AT THE PROBLEM,  
12 HOW DO YOU APPROACH IT?

13 ONE OF OUR FIRST PRODUCTS, FOR EXAMPLE, WAS OMNI TRACKS,  
14 WHICH WAS A COMMUNICATION SYSTEM FOR THE TRUCKING INDUSTRY, BUT  
15 YOU JUST COULDN'T PROVIDE THE COMMUNICATIONS. YOU HAD TO  
16 PROVIDE POSITIONAL LOCATION. BUT YOU HAD TO GET INTO THE  
17 LOGISTICS. YOU HAD TO LOOK AT THE WHOLE SYSTEM.

18 Q. CAN YOU TELL US, WHAT WAS THE STATE OF THE CELLULAR  
19 INDUSTRY BACK IN THE MID-'80S WHEN QUALCOMM WAS FOUNDED?

20 A. I THINK IT WAS JUST GETTING OUT OF ITS INFANCY, REALIZING  
21 THERE WAS GOING TO BE SOME SUBSTANTIAL GROWTH. UNTIL THEN, HAD  
22 LARGELY BEEN BASED, FIRST GENERATION, ON ANALOG RADIO  
23 COMMUNICATION, FM RADIO BASICALLY.

24 BUT EVERYBODY WAS BEGINNING TO SEE THAT IT LOOKED LIKE  
25 THERE WAS GOING TO BE SUBSTANTIAL SUBSCRIBER GROWTH, IT WAS

1 TIME TO MOVE OVER TO DIGITAL, SO THERE WAS A LOT OF INTEREST AT  
2 THAT POINT, HOW DO YOU GO FROM FIRST TO A SECOND GENERATION,  
3 PROVIDING VOICE OVER DIGITAL TECHNOLOGY.

4 Q. AND WHAT WAS THE PREVAILING TECHNOLOGY IN USE FOR CELLULAR  
5 BACK THEN?

6 A. WELL, AGAIN ABOUT '85, IT WAS STILL FM. BUT OVER THAT  
7 PERIOD, COMPANIES AROUND THE WORLD WERE LOOKING BASICALLY AT  
8 THREE CHOICES: FREQUENCY DIVISION, MULTIPLE ACCESS, TIME  
9 DIVISION MULTIPLE ACCESS, CODE DIVISION MULTIPLE ACCESS.

10 MOST OF THE COMPANIES HAD LOOKED AT CODE DIVISION AT THAT  
11 PERIOD DECIDED THERE WERE TOO MANY PROBLEMS, TOO MANY  
12 COMPLICATIONS, MAY NEVER BE COMMERCIAL, MAY NOT PROVIDE  
13 PROMISE.

14 SO I THINK THE FOCUS AT THAT POINT WAS ON TDMA, TIME  
15 DIVISION OR FREQUENCY DIVISION, FDMA.

16 Q. AT A VERY HIGH LEVEL, DR. JACOBS, CAN YOU DISTINGUISH FOR  
17 US BETWEEN THOSE TWO, TIME DIVISION MULTIPLE ACCESS AND CODE  
18 DIVISION? WHAT'S THE PRINCIPLE DIFFERENCE?

19 A. WELL, IN TIME DIVISION YOU HAVE A RADIOFREQUENCY CARRIER  
20 AND YOU DIVIDE UP TIME INTO TIME SLOTS AND YOU PROVIDE  
21 DIFFERENT USERS A DIFFERENT TIME SLOT REPETITIVELY.

22 SO YOU GOT A SLOT, SOMEBODY ELSE GETS A SLOT, AND THEN  
23 EVENTUALLY IT COMES BACK TO YOU, AND YOU GET ANOTHER SLOT. SO  
24 YOU'RE PROVIDING A TIME DIVISION OF THAT FREQUENCY USE.

25 IN CODE DIVISION, EVERYBODY IS ON SIMULTANEOUSLY AND THEY

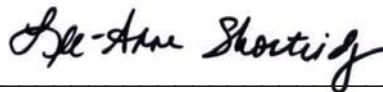
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CERTIFICATE NUMBER 8076



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CERTIFICATE NUMBER 9595

DATED: JANUARY 15, 2019

A277

UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA  
SAN JOSE DIVISION

FEDERAL TRADE COMMISSION, ) C-17-00220 LHK  
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PLAINTIFF, ) SAN JOSE, CALIFORNIA  
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VS. ) JANUARY 14, 2019  
)  
QUALCOMM INCORPORATED, A ) VOLUME 5  
DELAWARE CORPORATION, )  
) PAGES 858-1111  
DEFENDANT. ) **SEALED PAGES 946-949, 1004,**  
 ) **1024-1042, 1081-1083**

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1 Q. OKAY. NOW, YOU TALKED A BIT ABOUT LITIGATION FOR PATENTS  
2 AND ENFORCEMENT OF PATENTS.

3 YOU DIDN'T INVESTIGATE WHAT ARBITRATIONS OVER RATES  
4 QUALCOMM HAS ENGAGED IN; RIGHT?

5 A. I DID NOT SPECIFICALLY LOOK AT THAT ASPECT, NO.

6 Q. OKAY. THAT'S NOWHERE IN YOUR REPORT, IS IT, SIR?

7 A. I'M NOT SURE.

8 Q. OKAY. YOU AGREE THAT PATENT LITIGATION CAN BE RISKY;  
9 RIGHT?

10 A. IT CAN BE.

11 Q. AND WHEN YOU WERE AT TI, THERE WAS A BIG RELUCTANCE TO  
12 ACTUALLY TEST SOME OF THE TI'S MOST VALUABLE PATENTS IN COURT;  
13 RIGHT?

14 A. DURING THE PERIOD OF TIME BEFORE THE COURT OF APPEALS FOR  
15 THE FEDERAL CIRCUIT, THAT WAS CORRECT.

16 Q. OKAY. AND, IN FACT, YOU'VE CHARACTERIZED TI'S LEERINESS  
17 TO RISK ITS VALUABLE PATENTS IN LITIGATION AS COUNTER LEVERAGE  
18 AGAINST TI AS A LICENSOR, HAVEN'T YOU?

19 A. COULD YOU SHOW ME WHERE THAT IS?

20 Q. THAT'S ON PAGE 107 OF YOUR DEPOSITION, SIR, STARTING AT  
21 LINE 19.

22 (PAUSE IN PROCEEDINGS.)

23 THE WITNESS: YES, THIS REFERENCE IS TO A TIME PERIOD  
24 BEFORE THE CAFC WHERE SOME OF OUR COURTS WERE -- HAD A PERFECT  
25 RECORD OF FINDING PATENTS INVALID.

1 BY MR. PAIGE:

2 Q. BUT YOU AGREE THAT THE POSSIBILITY OF INVALIDITY IS  
3 COUNTER LEVERAGE AGAINST A LICENSOR; RIGHT?

4 A. IN THAT TYPE OF ENVIRONMENT, YES.

5 BUT AFTER THE COURT OF APPEALS FEDERAL CIRCUIT, TI DID  
6 RESORT TO LITIGATION OF THE PATENTS IT CONSIDERED TO BE  
7 VALUABLE.

8 Q. NOW, YOU'RE NOT OFFERING ANY OPINION AS TO THE FRAND RATE  
9 FOR QUALCOMM'S PATENT PORTFOLIO; RIGHT?

10 A. I AM NOT. I WAS NOT ASKED TO LOOK AT THAT.

11 Q. NOR ARE YOU OFFERING ANY OPINION FOR THE ROYALTY RATE --  
12 AS TO THE ROYALTY RATE THAT ANY OEM WOULD HAVE AGREED TO PAY TO  
13 QUALCOMM IN THE ABSENCE OF WHAT YOU CALL CHIP LEVERAGE; RIGHT?

14 A. AS TO AN ACTUAL ROYALTY RATE, I HAVE NO OPINION ON THAT.

15 Q. OKAY. NOW, EVEN IF CHIP LEVEL LICENSING WERE FEASIBLE,  
16 YOU AGREE THAT THE PRACTICE THAT HAS GROWN UP IN THE CELLULAR  
17 INDUSTRY IS THAT COMPANIES TAKE LICENSES AT THE DEVICE LEVEL;  
18 RIGHT?

19 A. THAT HAS BEEN THE COMMON APPROACH, I WOULD AGREE.

20 Q. FOR PURPOSES OF REACHING THE OPINIONS YOU EXPRESSED IN  
21 YOUR REPORT, YOU DIDN'T DO ANY RESEARCH INTO WHETHER THERE ARE  
22 ANY OEM'S WHO HAVE NEVER USED QUALCOMM CHIPS; RIGHT?

23 A. I DID NOT CONDUCT RESEARCH INTO THAT SUBJECT, NO.

24 Q. OKAY. AND LIKEWISE, YOU DIDN'T DO ANY RESEARCH INTO  
25 WHETHER THERE ARE ANY OEM'S WHO HAVE NEVER INTENDED TO USE



1 QUALCOMM'S CHIPS; RIGHT?

2 A. THAT IS ALSO CORRECT.

3 Q. AND YOU HAVEN'T DONE ANY ANALYSIS AT ALL, OR RANDOM SAMPLE  
4 OF, QUALCOMM LICENSEES TO DETERMINE IF AND TO WHAT EXTENT THE  
5 LICENSEES WERE DEPENDENT ON QUALCOMM'S CHIP AT ANY POINT IN  
6 TIME; RIGHT?

7 A. CAN I HAVE THAT QUESTION AGAIN?

8 Q. YOU HAVEN'T DONE ANY ANALYSIS AT ALL OF ALL OR A RANDOM  
9 SAMPLE OF QUALCOMM'S LICENSEES TO DETERMINE IF, OR TO WHAT  
10 EXTENT, THE LICENSEES WERE DEPENDENT ON QUALCOMM'S CHIPS AT ANY  
11 POINT IN TIME; RIGHT?

12 A. I DON'T THINK I CAN AGREE WITH THAT STATEMENT.

13 Q. OKAY. SO SINCE YOU DIDN'T RESEARCH OEM'S THAT DON'T USE,  
14 OR DON'T INTEND TO USE QUALCOMM CHIPS, YOU CAN'T SAY WHETHER  
15 NEGOTIATIONS FOR LICENSES BY SUCH OEM'S RESULT IN DIFFERENT  
16 TERMS TO QUALCOMM; RIGHT?

17 A. I HAVE NOT LOOKED AT THE ENTIRE UNIVERSE. I LOOKED AT THE  
18 RECORD THAT WAS DEVELOPED IN THIS CASE AND TESTIMONY FROM THOSE  
19 COMPANIES THAT DID ENGAGE AND DID CONSIDER USE OF QUALCOMM  
20 CHIPS TO BE ESSENTIAL TO THEIR FUTURE.

21 Q. OKAY. YOUR TESTIMONY COMES FROM YOUR REVIEW OF CERTAIN  
22 DOCUMENTS IN THE RECORD IN THIS CASE; RIGHT?

23 A. A VERY LARGE NUMBER OF DOCUMENTS IN THIS CASE, YES.

24 Q. AND YOU WERE SUPPLIED WITH THOSE DOCUMENTS BY COUNSEL FOR  
25 THE FTC; CORRECT?

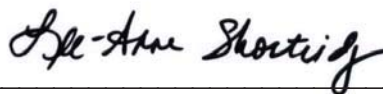
CERTIFICATE OF REPORTERS

WE, THE UNDERSIGNED OFFICIAL COURT REPORTERS OF THE  
UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF  
CALIFORNIA, 280 SOUTH FIRST STREET, SAN JOSE, CALIFORNIA, DO  
HEREBY CERTIFY:

THAT THE FOREGOING TRANSCRIPT, CERTIFICATE INCLUSIVE, IS  
A CORRECT TRANSCRIPT FROM THE RECORD OF PROCEEDINGS IN THE  
ABOVE-ENTITLED MATTER.



IRENE RODRIGUEZ, CSR, CRR  
CERTIFICATE NUMBER 8076



LEE-ANNE SHORTRIDGE, CSR, CRR  
CERTIFICATE NUMBER 9595

DATED: JANUARY 14, 2019

A282

UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA  
SAN JOSE DIVISION

FEDERAL TRADE COMMISSION, ) C-17-00220 LHK  
)  
PLAINTIFF, ) SAN JOSE, CALIFORNIA  
)  
VS. ) JANUARY 22, 2019  
)  
QUALCOMM INCORPORATED, A ) VOLUME 8  
9 DELAWARE CORPORATION, )  
) PAGES 1585-1828  
10 DEFENDANT. )  
\_\_\_\_\_ )

TRANSCRIPT OF PROCEEDINGS  
BEFORE THE HONORABLE LUCY H. KOH  
UNITED STATES DISTRICT JUDGE

A P P E A R A N C E S:

FOR THE PLAINTIFF: FEDERAL TRADE COMMISSION  
BY: JENNIFER MILICI  
DANIEL J. MATHESON  
WESLEY G. CARSON  
KENT COX  
NATHANIEL M. HOPKIN  
PHILIP J. KEHL  
MIKA IKEDA  
600 PENNSYLVANIA AVENUE, NW  
WASHINGTON, D.C. 20580

APPEARANCES CONTINUED ON NEXT PAGE

OFFICIAL COURT REPORTERS: LEE-ANNE SHORTRIDGE, CSR, CRR  
CERTIFICATE NUMBER 9595  
IRENE RODRIGUEZ, CSR, CRR, RMR  
CERTIFICATE NUMBER 8074

PROCEEDINGS RECORDED BY MECHANICAL STENOGRAPHY  
TRANSCRIPT PRODUCED WITH COMPUTER

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1 IN 2008, AND I HAVE CHAIRED THAT COMMITTEE NOW FOR TEN YEARS  
2 UNTIL THE END OF LAST YEAR.

3 Q. SO AS OF THIS TIME, YOU'RE NO LONGER THE CHAIR, BUT YOU  
4 DID CHAIR THE IPR SPECIAL COMMITTEE FOR THOSE TEN YEARS?

5 A. YES.

6 Q. NOW, DURING THE TIME THAT YOU WERE INVOLVED WITH THE IPR  
7 SPECIAL COMMITTEE, HOW WERE DECISIONS MADE IN THE COMMITTEE?

8 A. THIS COMMITTEE IS AN ADVISORY COMMITTEE TO THE GENERAL  
9 ASSEMBLY BECAUSE THE GENERAL ASSEMBLY WANTS TO UNDERSTAND AND  
10 KNOW HOW THE MEMBERSHIP VIEW ON THIS TOPIC IS.

11 THEREFORE, I HAVE DECIDED AND HAVE DONE THIS OVER THESE  
12 TEN YEARS, THAT ALL DECISIONS IN THIS COMMITTEE HAVE TO BE MADE  
13 BY CONSENSUS.

14 Q. AND WHEN YOU USE THE WORD "CONSENSUS," WHAT DO YOU MEAN?

15 A. CONSENSUS MEANS THE DECISION IS BACKED BY ALL STAKEHOLDER  
16 GROUPS IN THE MEMBERSHIP, SO IT'S ABSENT ANY SUSTAINED  
17 OPPOSITION OF ANY STAKEHOLDER GROUP IN ORDER TO MAKE SURE THAT  
18 EVERYBODY WHO'S CONCERNED OF SUCH DECISIONS HAVE A FAIR SAY AND  
19 IS ALSO AGREEABLE TO THOSE DECISIONS.

20 Q. DOES CONSENSUS REQUIRE UNANIMITY OF USE?

21 A. NO, IT DOES NOT. SO IT CAN'T BE BLOCKED, ANY DECISION, BY  
22 A SINGLE COMPANY.

23 Q. IS IT THE SAME AS A MAJORITY VOTE, CONSENSUS?

24 A. NO, NOT AT ALL, BECAUSE WHEN YOU USE MAJORITY, SO IF YOU  
25 HAVE 50 PERCENT, THERE IS A VERY HIGH LIKELIHOOD THAT YOU MISS

1 OUT COMPLETE STAKEHOLDER GROUPS.

2 ETSI HAS A VERY DIVERSE MEMBERSHIP WITH VERY DIVERSE  
3 INTERESTS. WE HAVE ALL THE BIG TECHNOLOGY COMPANIES IN THERE.

4 SO MAKING SUCH DECISIONS BY A SIMPLE MAJORITY WOULD LEAVE  
5 OUT IMPORTANT PARTS OF OUR MEMBERS.

6 Q. I'D LIKE TO NOW DIRECT YOUR ATTENTION TO THE BINDER THAT'S  
7 IN FRONT OF YOU, MR. WEILER.

8 THERE SHOULD BE ONLY ONE DOCUMENT THERE.

9 YOUR HONOR, THIS IS QX 2776, AND IT'S ALREADY ADMITTED  
10 INTO EVIDENCE.

11 MR. WEILER, DO YOU RECOGNIZE THIS DOCUMENT?

12 A. YES, I DO. THIS IS ETSI'S INTELLECTUAL PROPERTY RIGHTS  
13 POLICY IN ITS CURRENT VERSION.

14 Q. AND HAS -- IS THERE A SPECIFIC PROVISION IN THE IPR POLICY  
15 THAT MOST DIRECTLY ADDRESSES FRAND LICENSING?

16 A. YES. IF YOU TURN TO CLAUSE 6.1 OF THE ETSI IPR POLICY,  
17 THIS DESCRIBES THE PROVISIONS OF FRAND LICENSING.

18 Q. AND HAS CLAUSE 6.1 REMAINED ESSENTIALLY THE SAME DURING  
19 THE ENTIRE TIME THAT YOU HAVE BEEN INVOLVED WITH ETSI'S  
20 ACTIVITIES?

21 MS. GILLEN: OBJECTION, YOUR HONOR. MR. WEILER IS A  
22 FACT WITNESS. HE'S BEING ASKED HERE TO TESTIFY ABOUT HIS  
23 INTERPRETATION OF A CONTRACT PROVISION.

24 MR. TAFFET: YOUR HONOR, I DID NOT ASK HIM TO  
25 INTERPRET IT. I ASKED HIM WHETHER IT HAS REMAINED ESSENTIALLY

1 THE SAME, WHAT IS WRITTEN IN THE POLICY, SINCE HE'S BEEN  
2 INVOLVED WITH ETSI, AND SPECIFICALLY THE IPR POLICY.

3 THE COURT: WHAT'S YOUR RESPONSE TO THAT?

4 MS. GILLEN: I BELIEVE THE PRIOR QUESTION ASKED  
5 MR. WEILER WHETHER, OR WHAT PROVISION, RATHER, ADDRESSED FRAND  
6 COMMITMENTS IN THE AGREEMENT.

7 THE COURT: THE FIRST QUESTION WAS, IS THERE A  
8 SPECIFIC PROVISION IN THE IPR POLICY THAT MOST DIRECTLY  
9 ADDRESSES FRAND LICENSING?

10 AND THEN MR. WEILER SAID, 6.1.

11 AND THEN THE QUESTION WAS, HAS 6.1 REMAINED ESSENTIALLY  
12 THE SAME DURING THE ENTIRE TIME THAT YOU HAVE BEEN INVOLVED  
13 WITH ETSI'S ACTIVITIES?

14 SO YOU'RE CONCERNED THAT INTERPRETING WHAT "ESSENTIALLY  
15 THE SAME MEANS"? IS THAT YOUR OBJECTION?

16 MS. GILLEN: YES.

17 THE COURT: WELL, I ASSUME THERE'S NO OBJECTION IF IT  
18 JUST HAS THE LANGUAGE ITSELF, HAS THE TEXT ITSELF CHANGED,  
19 VERSUS AN INTERPRETATION OF -- IF THE LANGUAGE ITSELF HAS  
20 CHANGED, THEN HIS INTERPRETATION OF WHETHER IT'S REMAINED  
21 ESSENTIALLY THE SAME, I WOULD SUSTAIN THAT OBJECTION.

22 SO MAYBE YOU CAN REPHRASE.

23 MR. TAFFET: I CAN REPHRASE, YOUR HONOR.

24 THE COURT: THANK YOU.

25 BY MR. TAFFET:



1 Q. MR. WEILER, HAS THE LANGUAGE OF CLAUSE 6.1 CHANGED SINCE  
2 THE TIME YOU HAVE BEEN INVOLVED WITH ETSI ACTIVITIES?

3 A. NO.

4 Q. NOW, HOW DOES NOKIA IMPLEMENT SECTION 6.1?

5 A. NOKIA IS IMPLEMENTING ITS OBLIGATION UNDER 6.1 BY  
6 LICENSING ITS PATENTS ON THE DEVICE LEVEL.

7 Q. AND HAS THIS BEEN THE PRACTICE DURING THE ENTIRE TIME  
8 YOU'VE BEEN EMPLOYED BY NOKIA?

9 A. YES.

10 Q. WAS IT ALSO THE CASE DURING THE TIME THAT YOU WERE  
11 EMPLOYED BY SIEMENS, THAT THEY DID THE SAME PRACTICE?

12 A. YES.

13 Q. AND DID THAT PRACTICE CONTINUE DURING THE TIME YOU WERE  
14 EMPLOYED BY THE NOKIA/SIEMENS ENTITY THAT WAS FORMED?

15 A. ALSO IN -- ALSO YES.

16 Q. NOW, BASED ON YOUR INVOLVEMENT IN THE ETSI IPR SPECIAL  
17 COMMITTEE, HOW DO THE MEMBERS OF ETSI IMPLEMENT CLAUSE 6.1.

18 MS. GILLEN: OBJECTION. HEARSAY TO THE EXTENT HE'S  
19 ASKING ABOUT THE OTHER MEMBERS OF ETSI'S IMPLEMENTATION OF THE  
20 POLICY.

21 MR. TAFFET: YOUR HONOR, WITH RESPECT, THIS IS NOT  
22 HEARSAY. THIS IS KNOWLEDGE, PARTICULARIZED KNOWLEDGE THAT THIS  
23 WITNESS HAS BY VIRTUE OF HIS INVOLVEMENT IN THE BUSINESS OF  
24 NOKIA, HIS PARTICIPATION IN CHAIRING THE ETSI IPR SPECIAL  
25 COMMITTEE, AND --

1 THE COURT: I'M GOING TO SUSTAIN THE OBJECTION. WHY  
2 DON'T YOU LAY THE FOUNDATION OF HIS KNOWLEDGE.

3 MR. TAFFET: OKAY. FAIR ENOUGH.

4 THE COURT: UM-HUM.

5 BY MR. TAFFET:

6 Q. DO YOU HAVE AN UNDERSTANDING, MR. WEILER, OF HOW OTHER  
7 MEMBERS OF ETSI IMPLEMENT CLAUSE 6.1?

8 A. DURING MY TIME AS CHAIRMAN OF THIS COMMITTEE, WE HAVE  
9 DISCUSSED THE VARIOUS ELEMENTS OF FRAND AND, AS I HAVE SAID, IN  
10 THIS COMMITTEE, ALL MEMBERS OF ETSI WITH ANY INTEREST IN  
11 LICENSING HAVE BEEN THERE AND IN DETAIL EXPLAINED OVER THESE  
12 TEN YEARS ALSO HOW THEY DO THE LICENSING.

13 AND AS WELL DURING THIS TIME, I HAVE BEEN PARTICIPATING TO  
14 NUMEROUS CONFERENCES WHERE MANY MEMBER COMPANIES IN DETAIL HAVE  
15 EXPLAINED THEIR LICENSING PRACTICE.

16 SO I'M VERY WELL AWARE OF HOW MEMBERS, ETSI MEMBERS ARE  
17 IMPLEMENTING THEIR LICENSING OBLIGATION.

18 Q. AND HOW DO THE ETSI MEMBERS IMPLEMENT 6.1?

19 A. THEY ALL --

20 MS. GILLEN: EXCUSE ME. OBJECTION, YOUR HONOR. TO  
21 THE EXTENT MR. WEILER IS SPEAKING ABOUT HOW OTHER COMPANIES  
22 IMPLEMENT THEIR ETSI OBLIGATIONS, THAT'S HEARSAY.

23 THE COURT: SUSTAINED.

24 BY MR. TAFFET:

25 Q. WELL, DO YOU HAVE AN UNDERSTANDING, SIR, OF HOW THE OTHER

1       ETSI MEMBERS IMPLEMENT 6.1 BASED UPON THE FOUNDATION THAT YOU  
2       HAVE JUST LAID?

3       A.    IT IS MY UNDERSTANDING FROM ALL THIS DISCUSSION AT  
4       PRESENTATIONS THAT I HAVE HEARD THAT THEY ALL IMPLEMENT THE  
5       POLICY BY LICENSING ON THE DEVICE LEVEL.

6       Q.    AND LET ME ASK YOU TO JUST CLARIFY.  WHEN YOU SAY "DEVICE  
7       LEVEL," WHAT DO YOU MEAN?

8       A.    THE ETSI IPR POLICY REQUIRES YOU IN 6.1 TO GIVE LICENSES  
9       FOR EQUIPMENT, AND EQUIPMENT IS DEFINED IN ETSI'S IPR POLICY  
10      UNDER CLAUSE 15, AND IN THIS CLAUSE 15, YOU'LL FIND THE  
11      DEFINITION OF EQUIPMENT UNDER NUMBER 4.  AND THAT SAYS,  
12      "'EQUIPMENT' SHALL MEAN ANY SYSTEM OR DEVICE FULLY CONFORMING  
13      TO A STANDARD."

14           AND WHAT -- WHAT IS MY UNDERSTANDING OF THE INDUSTRY  
15      PRACTICE IS THAT IN THE CASE OF THE CELLULAR BUSINESS, THIS  
16      MEANS THAT THESE COMPANIES LICENSE, FOR EXAMPLE, THE HANDSET  
17      AND NOT ANY SUBPART OF THIS HANDSET.

18      Q.    OKAY.  NOW, BASED ON YOUR KNOWLEDGE AND EXPERIENCE IN  
19      WORKING IN STANDARDS, CHAIRING AND PARTICIPATING IN THE ETSI  
20      IPR SPECIAL COMMITTEE, DO YOU HAVE AN UNDERSTANDING WHETHER  
21      WHAT YOU DESCRIBED AS DEVICE LEVEL LICENSING IS CONSISTENT WITH  
22      THE OBJECTIVES OF THE ETSI POLICY?

23           MS. GILLEN:  OBJECTION, YOUR HONOR.  MR. WEILER HAS  
24      NOT BEEN DISCLOSED AS AN EXPERT.  QUALCOMM HAS DISCLOSED TWO  
25      OTHER EXPERTS ON THIS TOPIC.  HE IS A FACT WITNESS AND SHOULD

1 NOT BE TESTIFYING ABOUT HIS INTERPRETATION OF THE ETSI IPR  
2 POLICY.

3 MR. TAFFET: YOUR HONOR, AGAIN, CONSISTENT WITH YOUR  
4 RULING, IT'S DOCKET NUMBER 973, THE KNOWLEDGE THAT MR. WEILER  
5 IS PROVIDING RIGHT NOW IS SIMPLY BY VIRTUE OF HIS ACTIVITIES  
6 WITHIN ETSI, WITHIN HIS EMPLOYMENT BY NOKIA, AND BEFORE THAT  
7 NOKIA SIEMENS, AND BEFORE THAT SIEMENS FOR THE PAST 30 YEARS.

8 AND AS YOUR HONOR HELD IN DENYING THE FTC'S MOTION IN  
9 LIMINE NUMBER 1, THAT THAT IS PROPER LAY TESTIMONY.

10 THE COURT: I DON'T THINK THE RULING WAS SPECIFIC TO  
11 HIM, RIGHT?

12 MR. TAFFET: NO, NO.

13 THE COURT: IT WAS MORE ABOUT PATENT VALUATION, IF I  
14 REMEMBER CORRECTLY.

15 MR. TAFFET: THAT CONCERNED PATENT VALUATION, BUT  
16 YOUR HONOR CITED THE AUTHORITY THAT IS IN THE NORTHERN  
17 DISTRICT, THIS COURT, THAT SPECIFICALLY ADOPTS THE POSITION  
18 THAT SUCH OPINION TESTIMONY IS ADMITTED NOT BECAUSE OF  
19 EXPERIENCE, TRAINING, OR SPECIALIZED KNOWLEDGE WITHIN THE REALM  
20 OF AN EXPERT, BUT BECAUSE THE PARTICULARIZED KNOWLEDGE THAT THE  
21 WITNESS HAS BY VIRTUE OF HIS OR HER POSITION IN THE BUSINESS.

22 AND PERHAPS I COULD LAY THE FOUNDATION BETTER, BUT I  
23 THOUGHT I LAID IT OUT, THAT IT WAS PURELY BASED UPON HIS  
24 EXPERIENCE IN THE BUSINESS THAT WE'RE SEEKING MR. WEILER'S  
25 UNDERSTANDING.

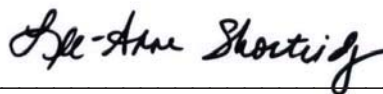
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IRENE RODRIGUEZ, CSR, CRR  
CERTIFICATE NUMBER 8076



LEE-ANNE SHORTRIDGE, CSR, CRR  
CERTIFICATE NUMBER 9595

DATED: JANUARY 22, 2019

A291

**Federal Trade Commission v. Qualcomm Incorporated**  
**5:17-cv-00220-LHK**

**Christina Petersson**

**Petersson, Christina - 04/20/2018**

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**Page 21**

21 :20 Q. Now does in your understanding, or Ericsson's  
21 understanding, section 6.1 of the ETSI IPR policy require  
22 you to license all parties that request a license?  
23 A. All parties that request a license and that make  
24 equipment in accordance with the policy.  
25 Q. And you mentioned or used the word equipment. What  
22 :1 is your understanding of the term equipment?  
2 A. My understanding of the term equipment is that it  
3 is a fully compliant product that can be used by the user.  
4 Q. And can you give us some examples what a fully  
5 compliant piece of equipment might be?  
6 A. A base station. A mobile phone.

**Petersson, Christina - 04/20/2018**

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**Page 25**

25 :5 Q. And in this value chain when you are granting  
6 licenses to Ericsson's SEP, cellular SEP portfolio, who  
7 would you be granting a license to?  
8 A. We would be licensing the company putting its name  
9 on the fully compliant equipment and selling that on the  
10 market. So it would be Apple, Samsung and those type of  
11 companies.  
12 Q. These were the companies that you identified as the  
13 OEM?  
14 A. Yes.  
15 Q. And this has been Ericsson's practice since you've  
16 been involved in the licensing?  
17 A. It has, yes.

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Petersson, Christina - 04/20/2018

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Page 26

26 :24            Were there other owners of cellular SEPs in the  
25            1990s other than Ericsson?  
27 :1            A. Yes, there was. I mentioned a few. Siemens,  
2            Nokia, Motorola, some of the Japanese companies as well.  
3            And now I'm just saying sort of high level. Of course there  
4            were more but --  
5            Q. Yes, I understand. Do you have an understanding  
6            whether the practice of those companies was to license also  
7            at the end-device level?  
8            A. That is my understanding, since we had the  
9            cross-licenses with these companies that I just mentioned.

Petersson, Christina - 04/20/2018

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37 :5            Q. And could you explain why licensing at the  
6            end-device level avoids contractual complications and  
7            potential litigations?  
8            A. The contractual complications would be let's say in  
9            a scenario where everyone in the value chain has a license  
10           at the same time. That's not going to happen. There will  
11           be a mix of certain component manufacturers who are asking  
12           for licenses, others who are maybe playing hide and seek.  
13           You will have the same scenario with ODMs, and you will have  
14           the same scenario with OEMs because you do today. So it  
15           will be a mix. So for the licensor it will be very  
16           difficult to see which product is actually unlicensed under  
17           the market. We have our experience from this ourselves  
18           because ST-Ericsson could not at all the points in time tell  
19           us what models out on the market included an ST-Ericsson  
20           component.  
21           Q. And you say also that the end-device level  
22           licensing avoids potential litigations. Can you explain  
23           that?  
24           A. Yes. And that's again that if you license only  
25           once in the value chain and you do it where it's most  
38 :1           efficient that will definitely avoid litigation than if you  
2           would have to chase after each and every company in the  
3           value chain. And they would all argue differently that  
4           "I buy from somebody who already has a license", but there's  
5           no way for you as a licensor to know whether they are having  
6           some license component or not. And for those that actually  
7           do sign a license, you will not have the same easy scenario  
8           by checking reports. Currently if you have licensing at the  
9           OEM level you can fairly estimate whether the reporting that  
10           is done at each quarter is correct because you will know  
11           that all their sales who is cellular will be something that  
12           they would have to report.

Petersson, Christina - 04/20/2018

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Page 42

42 :25            Q. If you go to the next paragraph it refers to that  
43 :1            if STE -- this is the ST-Ericsson joint venture?  
2            A. Yes.  
3            Q. Were to take licenses, it "would have been  
4            cumbersome and costly ... and would in fact have driven up  
5            the price of the STE chipset." A293  
6            Do you see that?  
7            A. Yes.

8 Q. Why would that have occurred?

9 A. Because ST-Ericsson's customers are OEMs and they  
10 have cross-licenses between them and ST-Ericsson's price did  
11 not include any consideration for paying IPR fees. So  
12 ST-Ericsson knew all well that they were implementing a  
13 standard but they were not paying the necessary license  
14 fees. And of course they priced the product accordingly,  
15 knowing that they would need to inform their customers to  
16 take that necessary license, which they also did, and the  
17 customer saw as something that was pretty natural because  
18 that's the way the industry had been functioning for many  
19 years.

20 Q. This paragraph further states that:

21 "... STE could rely on the industry practice  
22 and was in fact never approached by major patent  
23 holders like Samsung, Nokia, Alcatel, Lucent,  
24 Panasonic, NEC, Qualcomm etc."

25 Does this confirm or comport with your knowledge  
44 :1 regarding STE's operations?

2 A. Yes, it does.

Petersson, Christina - 04/20/2018

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49 :15 Q. I just want to refer you to the last sentence and  
16 the last part of that sentence which reads:

17 "... access to Qualcomm chipsets for  
18 incorporation into Ericsson products was not  
19 a determinative factor in the original decision to  
20 license or in the 2011 extension."

21 Do you see that?

22 A. Yes, I do.

23 Q. Is that a true and correct statement?

24 A. Yes, it is.

**Federal Trade Commission v. Qualcomm Incorporated**  
**5:17-cv-00220-LHK**

**Ranae McElvaine**

**McElvaine, Ranae - 04/03/2018**

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Page 13

13 :20           **Q. Ms. McElvaine, you have been handed**  
21           **Exhibit 3502. This is a document that**  
22           **InterDigital produced in this litigation. The**  
23           **Bates stamp on the first page is**  
24           **IDCC-FTCQCOM-0000139. Have you ever seen this**  
25           **document before?**  
14 :1           **A. I have.**  
2           **Q. Did you have any role in preparing**  
3           **it?**  
4           **A. Yes.**

**McElvaine, Ranae - 04/03/2018**

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Page 16

16 :3           **Q. All right. So the first sentence**  
4           **of the response reads "InterDigital, Inc.,**  
5           **InterDigital, has a licensing program under**  
6           **which the company enters into worldwide,**  
7           **portfolio-based, royalty-bearing, nonexclusive**  
8           **licenses with manufacturers of user equipment**  
9           **and/or infrastructure products covering sales**  
10          **of terminal units and infrastructure products**  
11          **compliant with cellular standards, including**  
12          **the 2G, 3G and 4G standards. First of all, is**  
13          **that in fact a true statement?**  
14          **A. That's a true statement.**

**McElvaine, Ranae - 04/03/2018**

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Page 17

17 :18           **Q. In that sentence, there's a**

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19 reference to terminal units. What does  
20 terminal units refer to?  
21 A. It's like an end user product, such  
22 as a phone or a tablet or a computer.

McElvaine, Ranae - 04/03/2018

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30 :19 Q. Let me just read into the record  
20 the first few sentences of InterDigital's  
21 response. It reads "InterDigital does not have  
22 a formal policy addressing whether or not to  
23 enter into license agreements with chip makers  
24 for its portfolio of relevant SEPs. In  
25 actuality, chip makers typically do not  
31 :1 approach holders of patents essential to  
2 cellular standards such as InterDigital seeking  
3 a license to our 2G, 3G or 4G-related patent  
4 portfolios. As a result, InterDigital does  
5 not, as a practical matter, enter into  
6 stand-alone patent license agreements with chip  
7 manufacturers. Rather, InterDigital follows  
8 industry practice and conducts its licensing  
9 business at the handset or other terminal unit  
10 level, and that has been InterDigital's  
11 practice for more than 20 years."  
12 So first question is does what I  
13 just read accurately reflect InterDigital's  
14 understanding and business practices?  
15 A. Yes.

UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA  
SAN JOSE DIVISION

FEDERAL TRADE COMMISSION, ) C-17-00220 LHK  
)  
PLAINTIFF, ) SAN JOSE, CALIFORNIA  
)  
VS. ) JANUARY 28, 2019  
)  
QUALCOMM INCORPORATED, A ) VOLUME 10  
DELAWARE CORPORATION, )  
) PAGES 2027-2094  
DEFENDANT. )  
\_\_\_\_\_ )

TRANSCRIPT OF PROCEEDINGS  
BEFORE THE HONORABLE LUCY H. KOH  
UNITED STATES DISTRICT JUDGE

A P P E A R A N C E S:

FOR THE PLAINTIFF: FEDERAL TRADE COMMISSION  
BY: JENNIFER MILICI  
DANIEL J. MATHESON  
WESLEY G. CARSON  
RAJESH JAMES  
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CERTIFICATE NUMBER 9595  
IRENE RODRIGUEZ, CSR, CRR, RMR  
CERTIFICATE NUMBER 8074

PROCEEDINGS RECORDED BY MECHANICAL STENOGRAPHY  
TRANSCRIPT PRODUCED WITH COMPUTER

A297

1 Q. ACTUALLY, YOUR REPORT REFLECTS 697,000 CDMA CAPABLE  
2 HANDSETS; RIGHT?

3 A. OKAY, I STAND CORRECTED, 697, NOT 650.

4 Q. AND THEY PURCHASED NO CDMA CHIPS FROM EITHER QUALCOMM OR  
5 VIA IN THE TWO YEARS AFTER SIGNING THE LICENSE; CORRECT?

6 A. THAT'S CORRECT, BECAUSE THEY DIDN'T COME OUT WITH THE  
7 HANDSETS UNTIL MORE THAN TWO YEARS LATER.

8 Q. SO FOR THE TWO YEAR PERIOD IN WHICH -- FOLLOWING EXECUTION  
9 OF THE LICENSE, THEY HAD NO RELIANCE WHATSOEVER ON QUALCOMM OR  
10 VIA?

11 A. I THINK THAT IS FALSE.

12 Q. NOW, YOU GAVE SOME TESTIMONY ABOUT PROFESSOR NEVO'S  
13 EMPIRICAL TESTS.

14 I TAKE IT YOU'VE DONE NO TESTING WHATSOEVER, EMPIRICAL OR  
15 OTHERWISE, TO DETERMINE WHETHER THE CONTRACT RATE OR SOME OTHER  
16 RATE IS ECONOMICALLY MEANINGFUL; CORRECT?

17 A. I DON'T UNDERSTAND THE QUESTION.

18 I CAN TELL YOU WHETHER A RATE IS ECONOMICALLY MEANINGFUL  
19 ONCE I UNDERSTAND WHAT IT MEASURES. THAT'S NOT AN EMPIRICAL  
20 QUESTION.

21 Q. MY QUESTION, PROFESSOR SHAPIRO, IS YOU DID NO RETESTING OF  
22 PROFESSOR NEVO'S NUMBERS USING SOME RATE OTHER THAN THE  
23 CONTRACT RATE? AS YOU TOLD US IN YOUR TESTIMONY, YOU HAVEN'T  
24 DONE THESE SORTS OF TESTS AT ALL; RIGHT?

25 A. I HAVE NOT GONE BACK TO HIS SET OF CONTRACTS AND TRIED TO



1 CONSTRUCT AN ECONOMICALLY MEANINGFUL VARIABLE. LIKE I SAID, I  
2 THINK THAT WOULD BE VERY DIFFICULT, IF NOT IMPOSSIBLE.

3 Q. AND YOU HAVEN'T DONE IT; RIGHT?

4 A. THAT'S CORRECT.

5 Q. YOU'RE LIMITED TO CRITICIZING THE EMPIRICAL WORK THAT  
6 PROFESSOR NEVO DID BECAUSE YOU HAVEN'T DONE ANY EMPIRICAL WORK  
7 OF YOUR OWN; RIGHT?

8 A. I'VE DONE -- MY ANALYSIS STANDS ON ITS OWN. YOU'RE  
9 REFERRING TO SPECIFIC REBUTTAL TESTIMONY, SO, YEAH, I'M  
10 RESPONDING TO WHAT HE DID AND EXPLAINING WHY IT'S GOT ALL THESE  
11 PROBLEMS.

12 Q. AND YOU'VE DONE NO EMPIRICAL STUDY OF QUALCOMM'S LICENSE  
13 RATES, ROYALTY RATES, OR UPFRONT PAYMENTS OVER THE YEARS AT  
14 ALL; CORRECT?

15 A. AGAIN, I LOOKED AT THE LICENSES. BUT IF YOU MEAN BY  
16 EMPIRICAL STUDY TRYING TO TAKE ALL OF THESE HUNDREDS OF  
17 LICENSES AND DISTILL THEM INTO SIMPLE DATA, I DON'T THINK YOU  
18 CAN DO THAT. SO, NO, I DIDN'T DO IT.

19 Q. AND YOU HAVE NOT DONE IT?

20 A. I JUST SAID I DIDN'T DO IT.

21 Q. SIMILARLY, WITH RESPECT TO YOUR TAX THEORY, YOU'VE DONE  
22 NOTHING TO ANALYZE THE R&D SPENDING OF ANY PARTICULAR CHIP  
23 MAKING RIVAL TO QUALCOMM; CORRECT?

24 A. I HAVE NOT ANALYZED -- I THINK IF YOU MEAN BY ANALYZED,  
25 LOOK AT EXACTLY WHY THEY SPENT THIS AMOUNT OF MONEY OR WHEN

1           THEY DID IT, I HAVE NOT GOT INTO THAT, THAT IS CORRECT.

2           Q.   YOUR TAX THEORY PREDICTS THAT SPENDING WILL GO DOWN, BUT  
3           YOU DID NO TESTING TO DETERMINE WHETHER OR NOT THAT WAS THE  
4           CASE; CORRECT?

5           A.   I DID NOT -- LOOK, I STAND BY THE THEORY THAT IF YOU HAVE  
6           A -- IF YOUR MARGINS ARE CUT AND YOUR QUANTITIES OF UNITS ARE  
7           CUT, YOU'RE GOING TO HAVE SMALLER OPERATING INCOME AND THAT'S  
8           GOING TO BE A DRAG ON POSSIBLE INVESTMENTS.

9                   I DID NOT EMPIRICALLY TEST HOW THAT PLAYED OUT WITH  
10          DIFFERENT MODEM CHIP SUPPLIERS.

11          Q.   IN OTHER WORDS, YOU DIDN'T ACTUALLY LOOK AT ANYBODY'S  
12          MARGINS OR ANYBODY'S SPENDING OR ANYBODY'S RESEARCH AND  
13          DEVELOPMENT, YOU SIMPLY ASSUMED THERE WOULD BE AN IMPACT  
14          BECAUSE THAT'S WHAT YOUR TAX THEORY PREDICTS; CORRECT?

15          A.   I DID NOT LOOK AT -- I DID NOT DO THE TYPE OF ANALYSIS  
16          PROFESSOR SNYDER DID REGARDING LOOKING AT RIVAL BY RIVAL AND I  
17          EXPLAINED, I BELIEVE, ACCORDING TO MY ANALOGY, WHY I DON'T  
18          THINK THAT'S A GOOD METHODOLOGY. THAT IS NOT AN ACCURATE WAY  
19          OF DETERMINING THE EFFECTS OF QUALCOMM'S CONDUCT.

20          Q.   AND YOU KNOW THAT PROFESSOR SNYDER ACTUALLY ANALYZED  
21          FIRM-WIDE R&D SPENDING OVER THE PERIOD WHEN YOU SAY QUALCOMM  
22          HAD MARKET POWER; RIGHT?

23          A.   HE ANALYZED A NUMBER OF THE FIRMS AND LOOKED AT THEIR  
24          SPENDING, YES.

25          Q.   COULD I HAVE QDX 9348 UP, PLEASE. THIS WAS ONE OF THE

A300

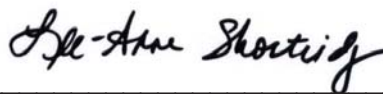
CERTIFICATE OF REPORTERS

WE, THE UNDERSIGNED OFFICIAL COURT REPORTERS OF THE  
UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF  
CALIFORNIA, 280 SOUTH FIRST STREET, SAN JOSE, CALIFORNIA, DO  
HEREBY CERTIFY:

THAT THE FOREGOING TRANSCRIPT, CERTIFICATE INCLUSIVE, IS  
A CORRECT TRANSCRIPT FROM THE RECORD OF PROCEEDINGS IN THE  
ABOVE-ENTITLED MATTER.



IRENE RODRIGUEZ, CSR, CRR  
CERTIFICATE NUMBER 8076



LEE-ANNE SHORTRIDGE, CSR, CRR  
CERTIFICATE NUMBER 9595

DATED: JANUARY 28, 2019

A301

UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA  
SAN JOSE DIVISION

FEDERAL TRADE COMMISSION, ) C-17-00220 LHK  
)  
PLAINTIFF, ) SAN JOSE, CALIFORNIA  
)  
VS. ) JANUARY 18, 2019  
)  
QUALCOMM INCORPORATED, A ) VOLUME 7  
DELAWARE CORPORATION, )  
) PAGES 1343-1584  
DEFENDANT. ) **SEALED PAGES** 1473-1477,  
) 1570-1573

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TRANSCRIPT OF PROCEEDINGS  
BEFORE THE HONORABLE LUCY H. KOH  
UNITED STATES DISTRICT JUDGE

A P P E A R A N C E S:

FOR THE PLAINTIFF: FEDERAL TRADE COMMISSION  
BY: JENNIFER MILICI  
DANIEL J. MATHESON  
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PROCEEDINGS RECORDED BY MECHANICAL STENOGRAPHY  
TRANSCRIPT PRODUCED WITH COMPUTER

A302

1           YOU DO THAT.

2           GO AHEAD, PLEASE.

3           MR. BORNSTEIN: SORRY, YOUR HONOR. THANK YOU.

4           AND WHILE WE'RE PAUSED, IT OCCURRED TO ME DURING THE  
5 NEGOTIATION, I NEGLECTED TO MENTION, YOUR HONOR, THAT THERE  
6 WILL BE A PORTION OF THIS THAT WE'LL NEED TO DO UNDER SEAL IN  
7 LIGHT OF AN ORDER YOU ENTERED PREVIOUSLY ON THE REQUEST OF  
8 AVANCI. I'LL SAVE THAT UNTIL THE VERY END OF THE EXAMINATION.

9           THE COURT: OKAY. AND WE'LL DO THAT RIGHT BEFORE THE  
10 LUNCH BREAK. IS THAT OKAY? WILL THAT WORK FOR YOUR FLOW?

11          MR. BORNSTEIN: THAT'S FINE, UNLESS I FINISH SOONER.

12          THE COURT: OKAY. GO AHEAD, PLEASE.

13          MR. BORNSTEIN: THANK YOU.

14          Q. SO THE NEGOTIATION YOU HAD WITH SAMSUNG IN 2009, DID  
15 ISSUES RELATING TO CHIP SUPPLY COME UP AT ALL IN THAT  
16 NEGOTIATION?

17          A. NO, NOT TO MY KNOWLEDGE. AND CERTAINLY NOT WHILE I WAS A  
18 PART OF IT.

19          Q. AND WOULD IT HAVE MADE ANY SENSE FOR ISSUES RELATING TO  
20 CONTINUED CHIP SUPPLY TO SAMSUNG TO HAVE ARISEN IN THAT  
21 NEGOTIATION?

22          A. NO, NOT TO MY MIND.

23          Q. WHY NOT?

24          A. BECAUSE THIS WAS NOT A SITUATION WHERE SAMSUNG WAS  
25 BECOMING UNLICENSED, WAS ABOUT TO BECOME UNLICENSED, OR WAS

A303

1 UNLICENSED.

2 SAMSUNG HAD A LICENSE. WE WERE RENEGOTIATING THE LICENSE.  
3 THEY WERE LICENSED UNDER -- IF THEY WERE -- SAY THEY WERE  
4 LICENSED, SO THE ISSUES THAT ARISE FROM SELLING TO SOMEONE  
5 THAT'S NOT LICENSED JUST DIDN'T COME INTO PLAY.

6 Q. SO I'M GOING TO MOVE NOW TO TALK ABOUT A DIFFERENT  
7 PRACTICE THAT HAS BEEN THE SUBJECT OF A CHALLENGE FROM THE FTC.

8 WHAT IS QUALCOMM'S PRACTICE WITH RESPECT TO GRANTING  
9 EXHAUSTIVE LICENSES TO MODEM CHIP SUPPLIERS?

10 A. IT IS OUR STRONG PREFERENCE NOT TO GRANT EXHAUSTIVE  
11 LICENSES TO MODEM CHIP SUPPLIERS.

12 Q. HAS QUALCOMM EVER GRANTED AN EXHAUSTIVE LICENSE FOR  
13 CELLULAR SEPS TO A MODEM CHIP SUPPLIER?

14 A. WE'VE NEVER ENTERED INTO AN AGREEMENT, TO MY KNOWLEDGE,  
15 FOR CELLULAR SEPS THAT WAS INTENDED TO BE EXHAUSTIVE.

16 Q. AND IS QUALCOMM UNIQUE AMONG HOLDERS OF CELLULAR SEPS IN  
17 THIS REGARD?

18 A. NO. THAT'S THE COMMON INDUSTRY PRACTICE IS TO LICENSE AT  
19 THE DEVICE LEVEL AND NOT TO LICENSE MODEM CHIP COMPANIES.

20 Q. AND WHY DOES QUALCOMM HAVE THAT PRACTICE?

21 A. WELL, QUALCOMM LICENSES AT THE DEVICE LEVEL. IT'S, YOU  
22 KNOW, INDUSTRY PRACTICE TO LICENSE AT THE DEVICE LEVEL.

23 AND THE LICENSING AT THE CHIP LEVEL IS UNNECESSARY IN THAT  
24 REGIME.

25 Q. WOULD THERE BE ANY NEGATIVE CONSEQUENCES TO THE INDUSTRY



1 OR TO QUALCOMM IN LICENSING AT THE CHIP LEVEL?

2 A. YES. IT WOULD MAKE LICENSING A LOT MORE CUMBERSOME AND  
3 MORE INEFFICIENT.

4 Q. HOW SO?

5 A. WELL, SO WE'RE TALKING ABOUT ESSENTIAL PATENTS, CELLULAR  
6 ESSENTIAL PATENTS. THE PATENTS ARE WRITTEN IN A WAY THAT  
7 DESCRIBE USER EQUIPMENT, AND BASE STATIONS, BUT SET THAT ASIDE  
8 BECAUSE REALLY WE'RE TALKING ABOUT HANDSETS, WE'RE TALKING  
9 ABOUT USER EQUIPMENT.

10 SO THE STANDARDS ARE WRITTEN IN A WAY THAT DESCRIBE USER  
11 EQUIPMENT, AND THE ESSENTIAL PATENTS READ ON USER EQUIPMENT.

12 NOW, SOME OF THEM MAY ALSO READ ON CHIPS, BUT THERE'S --  
13 IT'S UNDOUBTEDLY THE CASE THAT THERE ARE SOME OF THEM THAT READ  
14 ON USER EQUIPMENT AND DON'T READ ON CHIPS.

15 Q. AND JUST FOR CLARITY, WHAT DO YOU MEAN BY "USER  
16 EQUIPMENT"?

17 A. USER EQUIPMENT IS AN END USER DEVICE, LIKE A HANDSET.  
18 USER EQUIPMENT IS HOW IT'S TALKED ABOUT IN THE STANDARD. SO I  
19 APOLOGIZE IF I'M GETTING INTO TECHNICALITIES.

20 BUT THE POINT IS THAT THERE'S GOING TO BE SOME PATENTS  
21 THAT READ ON THE DEVICE AND DON'T -- AND DON'T READ ON THE  
22 CHIP, THAT YOU CAN'T HAVE AN INFRINGEMENT READ ON THE CHIP.

23 Q. AND WHAT'S THE PRACTICAL CONSEQUENCE OF THAT?

24 A. SO THE PRACTICAL CONSEQUENCE OF THAT IS IF YOU DO  
25 LICENSING AT THE MODEM CHIP LEVEL, YOU'RE GOING TO ALSO HAVE TO

1 DO SOME LICENSING AT THE DEVICE LEVEL, OR I GUESS YOU COULD  
2 FORGO VALUE, BUT THAT'S NOT THE GOAL EITHER; RIGHT?

3 SO YOU'RE GOING TO LICENSE EVERYTHING, YOU'RE GOING TO  
4 HAVE TO DO LICENSING AT BOTH LEVELS.

5 AND ONCE YOU'RE IN A WORLD WHERE YOU HAVE TO LICENSE A  
6 DEVICE ANYWAY, IT'S JUST MUCH MORE EFFICIENT TO DO ONE  
7 NEGOTIATION RATHER THAN TWO, PARTICULARLY GIVEN ALL OF THE  
8 UNCERTAINTIES INVOLVED AND THE POTENTIAL FOR DISPUTES.

9 Q. WHAT KIND OF POTENTIAL FOR DISPUTE ARE YOU TALKING ABOUT?

10 A. WELL, YOU COULD HAVE SITUATIONS -- THERE'S -- THIS MULTI  
11 LEVEL STRUCTURE, YOU COULD HAVE SITUATIONS WHERE THE CHIP GUY  
12 SAYS, WELL, HOLD ON A SECOND, I DON'T THINK I NEED TO TAKE A  
13 LICENSE TO THIS. YOU SHOULD LICENSE THE DEVICE GUY.

14 AND THE DEVICE GUY IS THEN TELLING YOU, WAIT, I DON'T  
15 THINK I SHOULD TAKE A LICENSE TO THIS. YOU SHOULD LICENSE THE  
16 CHIP GUY.

17 AND NOW, INSTEAD OF BILATERAL NEGOTIATIONS OVER VALUE,  
18 WE'RE HAVING, IN SOME WEIRD SENSE, SOME THREE-WAY NEGOTIATION  
19 EVEN OVER THE ISSUE OF WHO SHOULD TAKE A LICENSE EVEN BEFORE WE  
20 GET TO VALUE.

21 IT'S JUST MUCH MORE COMPLICATED.

22 THE COURT: I DON'T UNDERSTAND THIS. THE QUESTION  
23 WAS, IS THE -- IS QUALCOMM NOT GRANTING AN EXHAUSTIVE LICENSE  
24 FOR CELLULAR SEPS COMMON OR NOT, AND THEN YOU IMMEDIATELY  
25 SWITCHED -- THIS WAS THE QUESTION.

1 THE ANSWER WAS, WE HAVE NEVER ENTERED INTO AN AGREEMENT TO  
2 MY KNOWLEDGE FOR CELLULAR SEPS THAT WAS INTENDED TO BE  
3 EXHAUSTIVE.

4 "QUESTION: IS QUALCOMM UNIQUE AMONG HOLDERS OF CELLULAR  
5 SEPS IN THIS REGARD?

6 NO, THAT'S THE COMMON INDUSTRY PRACTICE, TO LICENSE AT THE  
7 DEVICE LEVEL AND NOT THE CHIP LEVEL.

8 I DIDN'T UNDERSTAND HOW THAT'S AN ANSWER TO THE EXHAUSTION  
9 QUESTION. I THINK I'M STILL UNCLEAR.

10 MR. BORNSTEIN: WELL, MAYBE I CAN TRY AND ADDRESS IT.

11 Q. SO THE -- THE FIRST QUESTION IS, IS QUALCOMM THE ONLY  
12 LICENSOR THAT -- CELLULAR SEP LICENSOR THAT HAS THIS PRACTICE  
13 OF LICENSING AT THE DEVICE LEVEL?

14 THE COURT: NO. THAT WASN'T THE QUESTION. THE  
15 QUESTION WAS, IS IT UNIQUE AMONG HOLDERS NOT TO DO EXHAUSTIVE  
16 LICENSES FOR CELLULAR SEPS. THAT WAS THE QUESTION.

17 MR. BORNSTEIN: OKAY.

18 THE COURT: AND THEN YOU FLIPPED IT TO LICENSING CHIP  
19 VERSUS DEVICE. I WANT TO KNOW WHAT'S THE QUESTION TO, IS IT  
20 UNIQUE NOT TO DO EXHAUSTIVE LICENSES FOR CELLULAR SEPS? THAT'S  
21 A DIFFERENT QUESTION.

22 BY MR. BORNSTEIN:

23 Q. WHAT IS THE ANSWER TO THAT QUESTION, MR. GONELL?

24 A. OKAY. IF WE'RE TALKING ABOUT LICENSES FOR CHIP MAKERS, IT  
25 IS NOT UNIQUE. IT'S COMMON THAT WE -- THAT ESSENTIAL PATENT

1       HOLDERS DON'T GRANT LICENSES TO CHIPS EXHAUSTIVELY. EVERYBODY  
2       DOES GRANT EXHAUSTIVE LICENSES TO DEVICES.

3       Q.    AND I THEN MOVED TO WHAT'S THE REASON THAT QUALCOMM  
4       FOLLOWS THIS PRACTICE?

5       A.    YES, IT'S BEEN -- QUALCOMM -- WELL, QUALCOMM LICENSES AT  
6       THE DEVICE LEVEL BECAUSE IT IS MORE EFFICIENT, IT'S INDUSTRY  
7       PRACTICE, IT'S THE WAY THE INDUSTRY HAS GROWN UP. IT'S MORE  
8       ECONOMICALLY EFFICIENT. IT GETS YOU CLOSER TO THE --

9               THE COURT: CAN I ASK A QUESTION? I'M SORRY TO  
10       INTERRUPT. YOU'RE SAYING NO ONE LICENSES AT THE CHIP LEVEL, SO  
11       YOU'RE SAYING ALL THE CHIP LICENSES ARE NOT EXHAUSTIVE. BUT  
12       ACCORDING TO YOU, THERE ARE NONE.

13              SO I GUESS I'M NOT WILLING FOLLOWING. YOU'RE SAYING  
14       DEVICE LEVEL LICENSES ARE EXHAUSTIVE. CHIP LEVEL LICENSES ARE  
15       NOT, NO ONE DOES.

16              BUT YOU'RE ALSO SAYING NO ONE LICENSES AT THE CHIP LEVEL  
17       ANYWAY. SO THEN THERE'S NOBODY THAT DOES A NONEXHAUSTIVE  
18       LICENSE ACCORDING TO WHAT YOU'RE SAYING? ISN'T THAT RIGHT?

19              THE WITNESS: WELL, OKAY. SO MAYBE -- SO I'M NOT  
20       BEING PRECISE.

21              THE COURT: SO WHO DOES THE CHIP LICENSES THEN?

22              THE WITNESS: SO -- SO IF YOU'RE AN SEP HOLDER --

23              THE COURT: YEAH.

24              THE WITNESS: -- WHEN YOU GO OUT AND TRY TO LICENSE  
25       FOR MONEY, YOU DON'T GO OUT AND LICENSE CHIP MAKERS. THAT'S --

1 WE'RE TALKING ABOUT -- SO THAT'S EXHAUSTIVE LICENSING AT THE  
2 CHIP LEVEL. THAT DOESN'T HAPPEN.

3 THE COURT: OKAY. I'M LOOKING AT -- YOU SAID IT'S  
4 COMMON THAT ESSENTIAL PATENT HOLDERS DON'T GRANT LICENSES TO  
5 CHIPS EXHAUSTIVELY.

6 SO WHAT WERE YOU REFERRING TO? ARE THERE LICENSES -- ARE  
7 THERE SUCH LICENSES? I'M JUST LOOKING AT YOUR TESTIMONY.

8 THE WITNESS: YEAH, SO --

9 THE COURT: YEAH.

10 THE WITNESS: OKAY. LET ME TRY TO --

11 THE COURT: I THINK I MIGHT BE CONFUSED.

12 THE WITNESS: LET ME TRY TO BACK UP. I'M 100 PERCENT  
13 SURE IT'S MY FAULT SO I APOLOGIZE.

14 LET ME TRY TO BACK UP AND SAY THIS. IN THE INDUSTRY,  
15 AMONG LICENSORS OF CELLULAR ESSENTIAL PATENTS, THE PEOPLE THAT  
16 GO OUT AND HAVE LICENSING PROGRAMS AND DO LICENSING --

17 THE COURT: OKAY.

18 THE WITNESS: THAT'S ALL DONE AT THE DEVICE LEVEL.

19 THE COURT: OKAY.

20 THE WITNESS: PEOPLE DON'T DO IT AT THE CHIP LEVEL.  
21 THEY DON'T LICENSE THEIR PATENTS FOR MONEY AT THE CHIP LEVEL.

22 THE COURT: AND ALL THE DEVICE LEVEL LICENSES ARE  
23 EXHAUSTIVE.

24 THE WITNESS: DEVICE LEVEL LICENSES ARE EXHAUSTIVE  
25 FOR SURE.

1 THE COURT: OKAY. RIGHT.

2 THE WITNESS: NOW, THERE SOMETIMES ARE, AND THIS IS  
3 MORE UNIQUE TO QUALCOMM THAN OTHER SEP LICENSORS.

4 MR. MERBER: OBJECTION, YOUR HONOR. I DON'T KNOW  
5 WHAT HIS FOUNDATION IS FOR DESCRIBING THE TERMS OF OTHER  
6 COMPANIES' LICENSES THAT DON'T INVOLVE QUALCOMM.

7 THE COURT: WHAT IS YOUR KNOWLEDGE OF OTHER  
8 COMPANIES' LICENSES, OTHER THAN QUALCOMM FOR SEPS?

9 THE WITNESS: SO I'VE BEEN A MEMBER OF THIS INDUSTRY  
10 FOR A VERY LONG TIME. I'VE GONE TO -- I'VE DISCUSSED LICENSING  
11 TOPICS GENERALLY AND HOW TO DO SEP LICENSING WITH COUNTER  
12 PARTIES BOTH ON THE LICENSEE SIDE AND THE LICENSOR SIDE.

13 HOW LICENSING IS DONE IS A VERY COMMON TOPIC OF  
14 DISCUSSION. I HAVE, AT TIMES, REVIEWED LICENSES WITH -- THAT  
15 OTHER PEOPLE HAVE WHEN IT'S BEEN APPROPRIATE UNDER  
16 CONFIDENTIALITY RULES.

17 AND FROM MY BASICALLY TEN YEARS IN THE INDUSTRY, AND  
18 UNDERSTANDING OF THE LICENSING BUSINESS AND HOW IT IS DONE,  
19 THAT'S THE BASIS OF WHAT I'M SAYING.

20 MR. MERBER: YOUR HONOR, IT SOUNDS LIKE HE'S PLANNING  
21 TO OFFER AN EXPERT OPINION ABOUT LICENSING PRACTICE IN THIS  
22 INDUSTRY, AND HE'S NOT BEEN OFFERED AS AN EXPERT.

23 MR. BORNSTEIN: YOUR HONOR, I THINK HE'S JUST  
24 DESCRIBING --

25 THE COURT: I'M SORRY. I MAY HAVE CAUSED MORE

1 CONFUSION.

2 CAN WE GO AHEAD WITH YOUR LINE OF QUESTIONING? LET'S JUST  
3 PICK UP WHERE YOU LEFT OFF. I APOLOGIZE I MAY HAVE CAUSED MORE  
4 PROBLEMS.

5 MR. BORNSTEIN: THAT'S FINE, YOUR HONOR, ALTHOUGH  
6 WE'RE ALL HERE TO MAKE SURE THAT YOUR HONOR GETS MR. GONELL'S  
7 TESTIMONY. SO IF THERE'S SOMETHING THAT IS UNCLEAR, I WANT TO  
8 BE SURE THAT THAT DOES GET RESOLVED.

9 THE COURT: I'M OKAY. LET'S GO AHEAD AND GO ON. I  
10 APOLOGIZE FOR THE INTERRUPTION.

11 MR. BORNSTEIN: SURE.

12 Q. SO YOU HAD BEEN TALKING ABOUT SOME OF THE PRACTICAL  
13 CONSEQUENCES OF LICENSING AT MULTIPLE LEVELS OF THE VALUE  
14 CHAIN.

15 ARE THERE ANY OTHER REASONS BESIDES AVOIDING THOSE  
16 PRACTICAL CONSEQUENCES, IN THE INDUSTRY PRACTICE YOU'VE  
17 DESCRIBED, THAT QUALCOMM LICENSES DEVICE MAKERS RATHER THAN  
18 CHIP MAKERS?

19 A. WELL, IT'S MORE ECONOMICALLY EFFICIENT IN THAT YOU GET  
20 CLOSER TO THE ACTUAL VALUE OF THE LICENSE, THE VALUE OF THE  
21 TECHNOLOGY WHEN YOU'RE LICENSING AT THE DEVICE LEVEL THAN YOU  
22 CAN AS A PRACTICAL MATTER WHEN YOU'RE DOING LICENSING AT AN  
23 UPSTREAM, SAY, COMPONENT LEVEL.

24 Q. SO IN YOUR TIME AT THE COMPANY, HAVE YOU NEGOTIATED ANY  
25 KIND OF PATENT AGREEMENTS AT THE CHIP LEVEL?



1 A. YES, I HAVE.

2 Q. HOW COMMON OR UNCOMMON IS THAT?

3 A. IT'S NOT VERY COMMON. BUT IT ARISES FROM TIME TO TIME,  
4 AND I'VE DONE IT FROM TIME TO TIME.

5 Q. AND HAVE YOU HAD DISCUSSIONS WITH A COMPANY CALLED  
6 MEDIATEK?

7 A. YES, I'VE BEEN INVOLVED IN NEGOTIATIONS WITH MEDIATEK.

8 Q. CAN YOU DESCRIBE WHAT KIND OF AGREEMENT YOU DISCUSSED WITH  
9 MEDIATEK AND HOW THAT CAME TO BE?

10 A. YES. WHEN I ARRIVED AT QTL, MEDIATEK ALREADY HAD SOME SET  
11 OF AGREEMENTS, TWO AGREEMENTS, WITH QUALCOMM THAT WERE PATENT  
12 AGREEMENTS OF SOME KIND.

13 IT CAME TO PASS THAT THEY WROTE US A LETTER SAYING THAT  
14 THEY WANTED TO DISCUSS THOSE AGREEMENTS AND LICENSING WITH US.

15 AFTER SOME CORRESPONDENCE, WE WENT TO MEET WITH THEM AND  
16 DISCUSS WHAT THEY WANTED.

17 Q. AND WHAT DID YOU LEARN FROM THAT MEETING?

18 A. IT QUICKLY BECAME APPARENT TO ME AT THE MEETING THAT THEY  
19 WERE NOT INTERESTED IN DISCUSSING WITH US A LICENSE UNDER WHICH  
20 THEY WOULD PAY US ROYALTIES.

21 WHAT THEY REALLY WERE AFTER, WHAT THEY WANTED TO DO WAS IN  
22 SOME WAY RENEGOTIATE AND GET OUT FROM UNDER THE AGREEMENTS THAT  
23 WERE ALREADY -- THAT THEY HAD ALREADY ENTERED INTO WITH US.

24 Q. AND WHAT HAPPENED?

25 A. WELL, WE -- THE DISCUSSIONS TURNED TO THAT TOPIC, TO

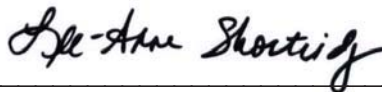
CERTIFICATE OF REPORTERS

WE, THE UNDERSIGNED OFFICIAL COURT REPORTERS OF THE  
UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF  
CALIFORNIA, 280 SOUTH FIRST STREET, SAN JOSE, CALIFORNIA, DO  
HEREBY CERTIFY:

THAT THE FOREGOING TRANSCRIPT, CERTIFICATE INCLUSIVE, IS  
A CORRECT TRANSCRIPT FROM THE RECORD OF PROCEEDINGS IN THE  
ABOVE-ENTITLED MATTER.



IRENE RODRIGUEZ, CSR, CRR  
CERTIFICATE NUMBER 8076



LEE-ANNE SHORTRIDGE, CSR, CRR  
CERTIFICATE NUMBER 9595

DATED: JANUARY 18, 2019

A313

UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA  
SAN JOSE DIVISION

FEDERAL TRADE COMMISSION, ) C-17-00220 LHK  
)  
PLAINTIFF, ) SAN JOSE, CALIFORNIA  
)  
VS. ) JANUARY 8, 2019  
)  
QUALCOMM INCORPORATED, A ) VOLUME 3  
9 DELAWARE CORPORATION, )  
) PAGES 408-636  
10 DEFENDANT. )  
) **SEALED PAGES 414 - 419**

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TRANSCRIPT OF PROCEEDINGS  
BEFORE THE HONORABLE LUCY H. KOH  
UNITED STATES DISTRICT JUDGE

A P P E A R A N C E S:

FOR THE PLAINTIFF: FEDERAL TRADE COMMISSION  
BY: JENNIFER MILICI  
DANIEL J. MATHESON  
WESLEY G. CARSON  
KENT COX  
NATHANIEL M. HOPKIN  
PHILIP J. KEHL  
600 PENNSYLVANIA AVENUE, NW  
WASHINGTON, D.C. 20580

APPEARANCES CONTINUED ON NEXT PAGE

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CERTIFICATE NUMBER 9595  
IRENE RODRIGUEZ, CSR, CRR, RMR  
CERTIFICATE NUMBER 8074

PROCEEDINGS RECORDED BY MECHANICAL STENOGRAPHY  
TRANSCRIPT PRODUCED WITH COMPUTER

A314

1                   **(PLAINTIFF'S WITNESS, CRISTIANO AMON, WAS SWORN.)**

2                   THE WITNESS: I DO.

3                   THE CLERK: THANK YOU. PLEASE BE SEATED.

4                   PLEASE STATE YOUR FULL NAME AND SPELL YOUR LAST NAME FOR  
5 THE RECORD.

6                   THE WITNESS: MY NAME IS CRISTIANO AMON. LAST NAME  
7 A-M-O-N.

8                   THE COURT: ALL RIGHT. 11:40. GO AHEAD, PLEASE.

9                   **DIRECT EXAMINATION**

10                  BY MR. MATHESON:

11                  Q. GOOD MORNING, SIR.

12                  YOU ARE THE PRESIDENT OF QUALCOMM AT THIS TIME; IS THAT  
13 CORRECT?

14                  A. YES.

15                  Q. AND PRIOR TO THE PRESIDENT OF QUALCOMM -- BECOMING  
16 PRESIDENT OF QUALCOMM, YOU WERE THE PRESIDENT OF QCT; IS THAT  
17 CORRECT?

18                  A. YES, THAT'S CORRECT.

19                  Q. NOW, MR. AMON, WE'RE GOING TO BE DISCUSSING THE INDUSTRY  
20 THROUGHOUT THE DAY.

21                  PER THE COURT'S ORDER, THE INTRODUCTION OF EVIDENCE FROM  
22 AFTER MARCH 2018 HAS BEEN EXCLUDED, SO I'D ASK, IF YOU COULD,  
23 TO REFRAIN FROM REFERRING TO SPECIFIC EVENTS THAT MAY HAVE  
24 OCCURRED SINCE THAT TIME.

25                  WOULD THAT BE POSSIBLE?

**A315**

1 A. UNDERSTOOD, YES.

2 Q. THANK YOU, SIR.

3 QUALCOMM WAS THE FIRST BASE SUPPLIER OF LTE BASEBAND  
4 PROCESSORS; IS THAT RIGHT?

5 A. YES.

6 Q. YOU'D AGREE THAT QUALCOMM'S PRICING FOR LTE CHIPSETS HAS  
7 BEEN BASED ON QCT'S LEADERSHIP AND DIFFERENTIATION FROM ITS  
8 COMPETITORS; RIGHT?

9 A. I BELIEVE THAT'S CORRECT.

10 Q. NOW, WITHIN LTE, QUALCOMM HAS BEEN HISTORICALLY VERY  
11 SUCCESSFUL IN PROVIDING THE LATEST FEATURES AND BEING FIRST TO  
12 MARKET WITH THOSE FEATURES; IS THAT RIGHT?

13 A. YES, WE'RE BEING FIRST TO MARKET WITH EVERY TRANSITION OF  
14 LTE.

15 Q. AND WHEN YOU SAY "EVERY TRANSITION OF LTE," IS IT FAIR TO  
16 SAY THAT INCLUDES EVERY NEW, HIGHER SPEED OF LTE?

17 A. YES, EVERY NEW HIGHER SPEED OF LTE 4G, YES.

18 Q. AND AS OF THE DATE OF YOUR DEPOSITION, IT'S ACCURATE TO  
19 STATE THAT QUALCOMM WAS ABLE TO CHARGE A HIGHER PRICE FOR THE  
20 LATEST MODEM FEATURE SETS IN WHICH IT WAS DIFFERENTIATED FROM  
21 ITS COMPETITION; RIGHT?

22 A. WE HAVE MANY PRODUCTS WITH LTE. FOR THE ADVANCED ONES,  
23 WHICH ARE THE FIRST TO MARKET, WE HAD A DIFFERENTIATED PRICE OF  
24 OUR SOLUTIONS. THERE WAS AN LTE PRICING FOR THE LATEST FEATURE  
25 ON THE ADVANCED CHIPSETS, YES.

A316

1 Q. THANK YOU.

2 COULD YOU TURN TO YOUR BINDER, SIR, THERE'S ACTUALLY A  
3 DOCUMENT THAT APPEARS JUST PRIOR TO THE TAB LABELED TAB 1.  
4 THAT DOCUMENT IS MARKED QX 8257.

5 A. YES, I HAVE IT.

6 Q. CAN YOU IDENTIFY THIS, SIR, AS AN E-MAIL EXCHANGE  
7 INVOLVING YOURSELF, MR. MOLLENKOPF, AND OTHER QUALCOMM  
8 EXECUTIVES IN NOVEMBER 2008?

9 A. I DON'T SEE MR. MOLLENKOPF ON THE FIRST PAGE.

10 Q. YOURSELF AND MR. MEHTA?

11 A. YES, I DO.

12 Q. OCTOBER OF 2008; IS THAT RIGHT?

13 A. YES.

14 MR. MATHESON: YOUR HONOR, MOVE TO ADMIT CX 8257.

15 MS. SESSIONS: NO OBJECTION.

16 THE COURT: IT'S ADMITTED.

17 (PLAINTIFF'S EXHIBIT CX 8257 WAS ADMITTED IN EVIDENCE.)

18 THE COURT: GO AHEAD, PLEASE.

19 BY MR. MATHESON:

20 Q. FOCUSsing ON THE E-MAIL YOU WROTE ON OCTOBER 24TH, 2008 TO  
21 MR. MEHTA AND MR. LEDERER, YOU WRITE, "HERE ARE SOME OF THE  
22 ISSUES: UMTS PRICES WERE HIGHER THAN CDMA DURING INTRODUCTION  
23 DUE TO QC'S UMTS MODEM LEADERSHIP (= SOLE SUPPLIER)."

24 DO YOU SEE THAT?

25 A. YES.

1 MAVERICK IS USED TO REPRESENT APPLE -- THEIR REQUIREMENTS FOR A  
2 CDMA CHIPSET THEY WERE INTERESTED, AND AS A RESULT OF A  
3 CONFERENCE CALL HE HAD WITH APPLE ENGINEERING TEAM.

4 Q. AND WHEN COUNSEL FOR THE FTC ASKED YOU ABOUT THIS  
5 DOCUMENT, I BELIEVE THAT YOU SAID THAT YOU DID NOT BELIEVE THAT  
6 ANOTHER SUPPLIER COULD MEET APPLE'S CHIPSET REQUIREMENTS. IS  
7 THAT RIGHT?

8 A. THAT IS CORRECT.

9 Q. AND WHAT -- WHAT DO YOU MEAN BY APPLE'S CHIPSET  
10 REQUIREMENTS?

11 A. THERE ARE TWO SPECIFIC REQUIREMENTS. ONE IS THEY WANTED  
12 THE CHIPSET TO FIT INTO LESS THAN 855 SQUARE MILLIMETERS IN  
13 THEIR PRINTED CIRCUIT BOARD AREA. SO THE AREA INTO THE PHONE.  
14 THE OTHER ONE IS THE SCHEDULE, THEY WOULD LIKE THAT CHIP  
15 TO BE AVAILABLE TO THEM. I DID NOT BELIEVE THE COMPETITION  
16 COULD MEET THOSE TWO REQUIREMENTS.

17 Q. WERE THERE OTHER CDMA CAPABLE CHIPSETS AVAILABLE AT THE  
18 TIME?

19 A. YES.

20 Q. SO WHY COULD THOSE OTHER CDMA CAPABLE CHIPSETS NOT MEET  
21 APPLE'S REQUIREMENT?

22 A. THEY COULD NOT FIT INTO THE AREA THAT APPLE DECIDED THEY  
23 WANTED THE CHIPSET TO FIT BASED ON THE DESIGN, THE I.D. OF THE  
24 APPLE PHONE.

25 Q. MR. AMON, HAS QUALCOMM SOLD WCDMA OR UMTS CAPABLE



1 CHIPSETS?

2 A. YES.

3 Q. WHEN DID QUALCOMM FIRST START SELLING THOSE CHIPSETS?

4 A. IN THE TRANSITION OF GSM TO WCDMA, WE WERE LATE TO DECIDE  
5 TO DEVELOP THOSE CHIPSETS WHEN THE STANDARD WAS DONE. I WOULD  
6 SAY PROBABLY BEHIND A LOT OF THE GSM INCUMBENTS.

7 BUT AS THE WCDMA GOT COMMERCIALIZED, WE WERE THE FIRST TO  
8 DELIVER THE CHIPSETS. I CAN'T PRECISE THE DAYS. I WOULD SAY  
9 CIRCA, YOU KNOW, 1999, 2000. BUT I CAN'T REALLY PRECISE.

10 Q. HAS QUALCOMM ALSO SOLD LTE CAPABLE CHIPSETS?

11 A. YES.

12 Q. WHEN DID QUALCOMM START SELLING LTE CAPABLE CHIPSETS?

13 A. AGAIN, I CAN'T HAVE THE EXACT DATE FROM MEMORY. I'LL SAY  
14 AROUND THE YEAR 2009, 2010 TIMEFRAME. THAT'S WHERE LTE  
15 STARTED.

16 Q. HAS QUALCOMM EVER SOLD SINGLE MODE LTE CHIPS FOR USE IN  
17 CELL PHONES?

18 A. WE -- NOT FOR CELL PHONES, NO, I DON'T THINK SO.

19 Q. WHAT'S A SINGLE MODE LTE CHIP?

20 A. A SINGLE MODE LTE CHIP, THAT ONLY THE LTE FUNCTIONALITY IS  
21 ENABLED. IT DOES NOT HAVE ANY 3 -- 3G FUNCTIONALITY. BY 3G I  
22 MEAN CDMA OR WCDMA OR TD-SCDMA. THOSE ARE THE DIFFERENT  
23 VARIANTS. ONLY 4G LTE IS ENABLED.

24 Q. HAS QUALCOMM ENJOYED A LARGE PORTION OF LTE CHIP SALES  
25 OVER THE YEARS?

1 A. YES, WE DID.

2 Q. AND WHY DO YOU BELIEVE THAT TO BE THE CASE?

3 A. BECAUSE WE'RE FIRST TO MARKET WITH LTE, AND THEN  
4 SUBSEQUENTLY FIRST TO MARKET WITH EVERY NEW GENERATION OF LTE.

5 Q. WHY HAS QUALCOMM BEEN ABLE TO BE FIRST TO MARKET?

6 A. ONE OF THEIR CORE COMPETENCES OF THE QUALCOMM CHIPSET  
7 BUSINESS IS TO BE, YOU KNOW, A WIRELESS SYSTEM COMPANY. I  
8 WOULD SAY QUALCOMM IS PROBABLY MORE OF A CREATOR OF CELLULAR  
9 STANDARDS THAN AN IMPLEMENTER OF STANDARDS AND BECAUSE OF THAT  
10 WE STARTED DEVELOPMENT EARLY.

11 THE OTHER REASON IS WE, WE HAVE A SIGNIFICANT R&D BUDGET  
12 DEDICATED TO WIRELESS TECHNOLOGY INVESTMENTS.

13 Q. AS THE LTE STANDARD HAS MATURED, HAS QUALCOMM'S TIME TO  
14 MARKET ADVANTAGE DIMINISHED?

15 A. YES, IT DID.

16 Q. WHO IS CATCHING UP IN LTE?

17 A. TODAY WE HAVE A NUMBER OF COMPETITORS. EXAMPLES ARE  
18 INTEL, MEDIATEK, SAMSUNG'S OWN CHIPSET DIVISION, WHICH IS  
19 CALLED EXYNOS, HUAWEI HISILICON, AND YOU HAVE ALSO THE CHINESE  
20 SPECTRUM. THIS IS SOME OF THE EXISTING LIST.

21 IT'S NOT -- IT'S NOT EXHAUSTIVE. THERE ARE OTHER  
22 COMPANIES AS WELL.

23 Q. DID QUALCOMM LTE CHIPS HAVE FEATURES THAT DIFFERENTIATE  
24 QUALCOMM CHIPS FROM ITS COMPETITORS?

25 A. YES.

1 Q. COULD YOU GIVE SOME EXAMPLES?

2 A. ALL OF THE NEW -- OFTEN ALL OF THE NEW MODEM FEATURES ON A  
3 PARTICULAR LTE 4G STANDARD GET COMMERCIALIZED AS PART OF OUR  
4 SNAPDRAGON 800 PREMIUM TIER CHIPSET.

5 AND THE FEATURES ARE NOT ONLY UNIQUE TO LTE. THE FEATURES  
6 THAT DIFFERENTIATE THE CHIPSET IS PROBABLY THE, THE MOST  
7 ADVANCED TRANSISTOR IN THE INDUSTRY, PROCESSOR FOR ARTIFICIAL  
8 INTELLIGENCE MACHINE LEARNING, GRAPHICAL PROCESSORS, WI-FI  
9 RADIOS, USUALLY WE ALSO HAVE THE LATEST STANDARDS ON WI-FI.  
10 AND SO THE QUALCOMM PRODUCT IS WHAT WE CALL A SYSTEM ON A CHIP  
11 THAT HAS A NUMBER OF DIFFERENTIATED FEATURES THAT MAKES A  
12 SMARTPHONE WORK BEYOND LTE.

13 Q. COULD YOU EXPLAIN A LITTLE BIT MORE WHAT YOU MEAN BY A  
14 SYSTEM ON A CHIP?

15 A. A SYSTEM ON A CHIP MEANS, YOU KNOW, EVERY SINGLE  
16 FUNCTIONALITY THAT YOU NEED ON YOUR PHONE, WHETHER IT'S VIDEO  
17 PLAYER, THE MUSIC PLAYER, THE GRAPHICS PROCESSOR FOR GAMES, THE  
18 CPU TO RUN YOUR OPERATIONAL SYSTEMS, THE DIGITAL SIGNAL  
19 PROCESSORS FOR ALL OF THE MULTIMEDIA.

20 THOSE ARE SOME EXAMPLES. THEY'RE ALL INCLUDED INTO A  
21 SINGLE CHIP. IN MANY CASES THE SMARTPHONE, ALL OF THE  
22 PROCESSOR IN THE QUALCOMM ARCHITECTURE IS DONE BY THE SINGLE  
23 CHIP, INCLUDING THE CELLULAR MODEM.

24 Q. MR. AMON, TURNING YOUR ATTENTION TO 5G. HAS QUALCOMM BEEN  
25 WORKING ON CHIPS THAT WILL WORK ON THE 5G STANDARD?

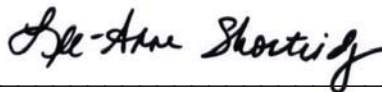
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IRENE RODRIGUEZ, CSR, CRR  
CERTIFICATE NUMBER 8076



LEE-ANNE SHORTRIDGE, CSR, CRR  
CERTIFICATE NUMBER 9595

DATED: JANUARY 8, 2019

A322

UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA  
SAN JOSE DIVISION

FEDERAL TRADE COMMISSION, ) C-17-00220 LHK  
)  
PLAINTIFF, ) SAN JOSE, CALIFORNIA  
)  
VS. ) JANUARY 15, 2019  
)  
QUALCOMM INCORPORATED, A ) VOLUME 6  
DELAWARE CORPORATION, )  
) PAGES 1112-1342  
DEFENDANT. )  
\_\_\_\_\_ )

TRANSCRIPT OF PROCEEDINGS  
BEFORE THE HONORABLE LUCY H. KOH  
UNITED STATES DISTRICT JUDGE

A P P E A R A N C E S:

FOR THE PLAINTIFF: FEDERAL TRADE COMMISSION  
BY: JENNIFER MILICI  
DANIEL J. MATHESON  
WESLEY G. CARSON  
KENT COX  
NATHANIEL M. HOPKIN  
PHILIP J. KEHL  
MIKA IKEDA  
600 PENNSYLVANIA AVENUE, NW  
WASHINGTON, D.C. 20580

APPEARANCES CONTINUED ON NEXT PAGE

OFFICIAL COURT REPORTERS: LEE-ANNE SHORTRIDGE, CSR, CRR  
CERTIFICATE NUMBER 9595  
IRENE RODRIGUEZ, CSR, CRR, RMR  
CERTIFICATE NUMBER 8074

PROCEEDINGS RECORDED BY MECHANICAL STENOGRAPHY  
TRANSCRIPT PRODUCED WITH COMPUTER

A323

1           THERE ARE TWO WAYS OF DOING IT.   EITHER YOU CAN INCREASE  
2           THE SIZE OF THE PIPE OR YOU CAN ADD MORE PIPES.   EACH OF THEM  
3           IS NARROW ENOUGH, BUT YOU'RE ACTUALLY KIND OF AGGREGATING THAT.

4           WE FELT THE NEED TO HAVE A SOLUTION WHEREIN WE WOULD START  
5           AGGREGATING THESE PIPES NOW SWITCHING GEARS BACKWARDS IN  
6           WIRELESS COMMUNICATIONS, EVERY WIRELESS OPERATOR, WHETHER IT'S  
7           VERIZON OR AT&T, I'M GOING TO PICK THOSE NAMES JUST TO SIMPLIFY  
8           THINGS, THEY ALL HAVE THE SPECTRUM HOLDINGS AND THEY'RE NOT ALL  
9           CONTIGUOUS.   THEY ALL HAPPEN TO BE IN DIFFERENT PORTIONS OF THE  
10          SPECTRUM.

11          SO YOU HAVE TO HAVE A WAY OF TRYING TO AGGREGATE THE  
12          DIFFERENT PIPES.   THEY WEREN'T CONTIGUOUS TOGETHER.   THEREFORE,  
13          IT WAS VERY IMPORTANT FOR US TO MAKE SURE THAT THAT HAPPENS IN  
14          THE RIGHT WAY SO THAT ONE CAN GET TO VERY HIGH DATA RATES.  
15          TODAY WE TALK OF GIGABIT DATA RATE DEVICES AS WE WALK AROUND.  
16          WE GET GIGABIT SPEEDS ON OUR DEVICES.

17          BUT THIS WAS A STEPPING STONE IN THAT DIRECTION.   AND  
18          THERE'S SO MANY DIFFERENT NUANCES ON TOP OF THAT.   SOME OF  
19          THESE PIPES MAYBE YOU ONLY WANT TO DOWNLOAD, YOU DON'T WANT TO  
20          UPLOAD ON THAT AT ALL, ONLY DOWNLOAD.   AND IN SOME OF THEM YOU  
21          WANT TO DO BOTH.

22          IN SOME OF THEM, DEPENDING ON THE TIME FOR A CERTAIN  
23          FRACTION OF THE TIME YOU DO DOWNLOAD AND A CERTAIN OTHER  
24          FRACTION OF THE TIME YOU DO UPLOAD.   SO THERE ARE DIFFERENT  
25          VARIANTS OF CARRIER AGGREGATION.

1 Q. WHEN DID QUALCOMM START WORKING ON CARRIER AGGREGATION?

2 A. CARRIER AGGREGATION, AS A VERY PRIMITIVE LEVEL, WAS A  
3 CONCEPT THAT WAS INTRODUCED IN 3G.

4 BUT EVERY SINGLE GENERATION OF TECHNOLOGY, WHETHER IT IS  
5 4G AND EVEN TODAY IN 5G, WE'VE HAD TO REINVENT IT IN A VERY  
6 SIGNIFICANT MANNER, ADDING A LOT OF NEW ELEMENTS TO IT, A LOT  
7 OF NEW TECHNOLOGY, BECAUSE THE GENERATIONAL TECHNOLOGY IS  
8 ALWAYS CHANGING AND YOU WANT TO MAKE SURE THAT YOU TRACK THAT,  
9 BUT ON TOP OF THAT, ADD NEW CAPABILITIES AS TECHNOLOGY MATURES.

10 AND TODAY, BY THE WAY, WE TALK OF 5G. IN FACT, YOU CAN EVEN  
11 THINK OF TWO PIPES, ONE PIPE IS 4G, THE OTHER PIPE IS 5G, AND  
12 WE AGGREGATE BOTH OF THEM TOGETHER. THAT IS WHAT WE ANTICIPATE  
13 IS GOING TO COME UP NOW.

14 Q. WERE QUALCOMM'S IDEAS ABOUT CARRIER AGGREGATION  
15 INCORPORATED INTO STANDARDS?

16 A. YES, THEY WERE.

17 Q. WHICH ONES?

18 A. IN 3G AND IN 4G. NOW AS WE HEAD INTO 5G, THEY'VE BEEN  
19 INCORPORATED THERE AS WELL.

20 Q. IS THERE A PARTICULAR RELEASE OF THE LTE STANDARD THAT  
21 QUALCOMM'S IDEAS WERE INCORPORATED INTO?

22 A. THE VERY FIRST RELEASE IN WHICH LTE CARRIER AGGREGATION,  
23 OR 4G CARRIER AGGREGATION WAS INTRODUCED WAS RELEASE 10. THIS  
24 WAS, I BELIEVE, IN THE 2011 TIMEFRAME GIVE OR TAKE.

25 Q. AND WHAT WAS QUALCOMM'S ROLE IN CARRIER AGGREGATION IN



1 RELEASE 10 AS COMPARED TO OTHERS?

2 A. FROM MY PERSPECTIVE, I THOUGHT THAT WE HAD FOUNDATIONAL  
3 IDEAS, EVERY SINGLE RELEASE AFTER THAT, RELEASE 10, RELEASE 11,  
4 RELEASE 12, THERE HAVE BEEN NEW VARIANTS OF CARRIER AGGREGATION  
5 THAT WERE INTRODUCED, AND WE BROUGHT IN ALL THESE CONCEPTS  
6 EARLY ON.

7 Q. DR. MALLADI --

8 THE COURT: CAN I ASK YOU, I DON'T THINK THIS IS AN  
9 EXHIBIT THAT'S BEEN ADMITTED.

10 MS. SESSIONS: IT'S NOT. THESE ARE JUST  
11 DEMONSTRATIVES, YOUR HONOR.

12 THE COURT: OH, THAT'S A QDX.

13 MS. SESSIONS: YES, I'M SORRY, THAT PARTICULAR SLIDE  
14 DOESN'T SEEM TO HAVE THE QDX STAMPED ON IT, BUT THESE ARE ALL  
15 DEMONSTRATIVES.

16 THE COURT: ALL RIGHT. THANK YOU.

17 BY MS. SESSIONS:

18 Q. DR. MALLADI, HAS QUALCOMM DONE RESEARCH INTO USING  
19 UNLICENSED SPECTRUM FOR CELLULAR?

20 A. YES, WE HAVE.

21 Q. WHAT IS UNLICENSED SPECTRUM?

22 A. OKAY. SO MAYBE I SHOULD FIRST EXPLAIN WHAT A LICENSED  
23 SPECTRUM IS.

24 Q. AND YOU SHOULD PLEASE SLOW DOWN. THANK YOU.

25 A. OKAY. LICENSED SPECTRUM IS IF YOU ARE A WIRELESS CARRIER,

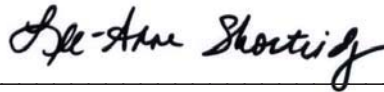
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CERTIFICATE NUMBER 8076



LEE-ANNE SHORTRIDGE, CSR, CRR  
CERTIFICATE NUMBER 9595

DATED: JANUARY 15, 2019

A327

UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA  
SAN JOSE DIVISION

FEDERAL TRADE COMMISSION, ) C-17-00220 LHK  
)  
PLAINTIFF, ) SAN JOSE, CALIFORNIA  
)  
VS. ) JANUARY 11, 2019  
)  
QUALCOMM INCORPORATED, A ) VOLUME 4  
9 DELAWARE CORPORATION, )  
) PAGES 637-857  
10 DEFENDANT. )  
) SEALED PAGES 739 - 740  
11 \_\_\_\_\_

TRANSCRIPT OF PROCEEDINGS  
BEFORE THE HONORABLE LUCY H. KOH  
UNITED STATES DISTRICT JUDGE

A P P E A R A N C E S:

FOR THE PLAINTIFF: FEDERAL TRADE COMMISSION  
BY: JENNIFER MILICI  
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CERTIFICATE NUMBER 8074

PROCEEDINGS RECORDED BY MECHANICAL STENOGRAPHY  
TRANSCRIPT PRODUCED WITH COMPUTER

A328

1 Q. YOU TESTIFIED EARLIER THAT QUALCOMM HAS A PRACTICE OF  
2 SELLING CHIPS ONLY TO FOLKS LICENSED ON ITS TECHNOLOGY.

3 HOW LONG HAS THAT BEEN, THAT PRACTICE BEEN IN EFFECT AT  
4 QUALCOMM?

5 A. AS LONG AS I CAN -- AS LONG AS I KNOW ABOUT IT.

6 Q. WAS IT THERE WHEN YOU ARRIVED?

7 A. AS FAR AS I KNOW.

8 Q. AND IS THAT PRACTICE WELL KNOWN AMONG QUALCOMM'S  
9 CUSTOMERS?

10 A. IT IS.

11 Q. ARE THERE BUSINESS REASONS FOR THE PRACTICE AT QUALCOMM?

12 A. THERE ARE.

13 Q. CAN YOU DESCRIBE THOSE FOR THE COURT, PLEASE.

14 A. THIS IS THE PRACTICE OF SELLING TO LICENSED OEM'S?

15 Q. THAT'S RIGHT.

16 A. YEAH. SO YOU HAVE TO THINK OF QUALCOMM AS A SYSTEMS  
17 COMPANY. ESSENTIALLY WE HAVE TWO, TWO BUSINESSES.

18 THE LICENSING BUSINESS TENDS TO INVEST IN KIND OF THE  
19 FUNDAMENTAL R&D THAT MAKES THE CELLULAR SYSTEM HAPPEN,  
20 GENERATES A LOT OF I.P., SOME OF THAT I.P. IS ON THE PHONE,  
21 SOME OF THAT I.P. IS IN THE CHIPS, SOME OF THE I.P. COVERS --

22 Q. SLOW DOWN JUST A LITTLE BIT, MR. MOLLENKOPF, IF YOU WILL,  
23 PLEASE.

24 A. SORRY.

25 Q. THEY'RE TRYING TO TAKE DOWN EVERY WORD. GO AHEAD.

1 A. SO AS I SAID, TWO BUSINESSES. THE LICENSING BUSINESS  
2 TENDS TO INVEST IN THE FUNDAMENTAL R&D THAT MAKES THE ECOSYSTEM  
3 HAPPEN, THAT DRIVES CELLULAR. IT GENERATES A LOT OF I.P., IT  
4 INVESTS VERY EARLY.

5 AND SOME OF THAT I.P. IS IN THE CHIP, SOME OF THAT I.P. IS  
6 IN THE PHONE, SOME OF THAT I.P. COVERS THE OVERALL OPERATION OF  
7 THE SYSTEM BETWEEN THE PHONE AND THE CORE NETWORK AND  
8 TECHNOLOGIES LIKE THAT.

9 THAT'S THE, THAT'S THE LICENSING BUSINESS.

10 WE ALSO HAVE A CHIP BUSINESS AS WELL, AND WHAT WE DO IS WE  
11 DON'T LICENSE THE -- OR WE ONLY SELL TO, TO COMPANIES WITH A  
12 LICENSE BECAUSE NOT ALL OF THE I.P. IS ACTUALLY COVERED IN THE  
13 CHIP.

14 AND SO WHAT WE WANT TO DO IS MAKE SURE THAT THE OEM'S ARE  
15 COVERED. WE SELL TO LICENSED OEM'S AND THEN WE SELL TO CHIP  
16 COMPANIES. WE WANT TO MAKE SURE IT'S A LEVEL PLAYING FIELD ON  
17 THE CHIP SIDE AND WE WANT TO MAKE SURE THAT THE OEM IS COVERED  
18 TOTALLY WITH THE I.P. THAT WE GENERATE, MUCH OF IT OUTSIDE THE  
19 CHIP.

20 Q. WHEN YOU SAY YOU WANT TO CREATE A LEVEL PLAYING FIELD ON  
21 THE CHIP SIDE, CAN YOU DESCRIBE FOR US WHAT YOU MEAN?

22 A. YEAH. WE WANT TO -- SINCE A NUMBER OF OUR -- SOME OF OUR  
23 I.P. IS IN THE CHIP AND SOME OF IT ISN'T. THERE ARE  
24 COMPETITORS WHO WOULD BE SELLING CHIPS THAT ARE USING OUR I.P.  
25 THAT IF WE PUT THE PRICE IN THE CHIP, IT WOULD CREATE A

1 SITUATION WHERE PEOPLE COULD BE SELLING A PRODUCT WITHOUT  
2 PAYING US FOR THE I.P. THAT'S KIND OF THE -- ONE OF THE  
3 REASONS WHY WE DO IT.

4 Q. WHY DOESN'T QUALCOMM SIMPLY PRICE THE VALUE OF ITS  
5 INTELLECTUAL PROPERTY INTO THE CHIPS AND SELL IT -- RECOVER IT  
6 THAT WAY?

7 A. WELL, I THINK IT'S -- I THINK IT'S, FIRST OF ALL, NOT THE  
8 WAY THE INDUSTRY HAS BEEN ORGANIZED AND RUNNING. IT'S BEEN  
9 RUNNING FOR A LONG TIME SO THAT THE LICENSING IS ACTUALLY AT  
10 THE DEVICE LEVEL. THAT'S ONE.

11 AND ONE OF THE REASONS WHY THAT'S THERE IS I THINK IT'S  
12 THE MOST EFFICIENT PLACE TO DO IT, OTHERWISE THE LICENSING  
13 FRAMEWORK WOULD VERY, VERY, VERY CUMBERSOME.

14 SO OUR PRACTICE IS ACTUALLY VERY CONSISTENT WITH WHAT THE  
15 INDUSTRY IS DOING, AND WE THINK IT'S VERY EFFICIENT.

16 Q. IF YOU ATTEMPTED TO PRICE THE FULL VALUE OF I.P. INTO YOUR  
17 CHIPS, WOULD YOU BE ABLE TO RECOVER ON THE PATENTED INVENTIONS  
18 THAT ARE OUTSIDE THE CHIPS?

19 A. NO, NOT UNLESS WE LICENSED TO OTHER PEOPLE AS WELL.

20 Q. ALL RIGHT. AND DOES QUALCOMM GENERATE AND CREATE PATENTED  
21 INVENTIONS THAT ARE NOT EMBODIED IN THE CHIPS THEMSELVES?

22 A. YES.

23 Q. CAN YOU GIVE US SOME EXAMPLES OF THAT?

24 A. SURE. SO I'LL JUST -- I'LL GO BACK TO -- SO IF YOU THINK  
25 OF QUALCOMM AS, YOU KNOW, THE COMPANY THAT WORKS ON THE

1 FUNDAMENTAL TECHNOLOGY THAT MAKES THE CELLULAR ECOSYSTEM  
2 HAPPEN -- AND WE'VE DONE THAT FOR MANY GENERATIONS -- WHAT  
3 WE'RE TRYING TO DO IS ANTICIPATE WHAT IS IT -- HOW -- WHAT DO  
4 YOU NEED TO INVENT SO THAT CERTAIN ECOSYSTEM, CELLULAR  
5 ECOSYSTEMS CAN HAPPEN.

6 SO ONE OF THE REASONS THAT WE CAN MAKE A CALL ANYWHERE IN  
7 THE WORLD OR A DATA CALL ANYWHERE IN THE WORLD TO ANYWHERE ELSE  
8 IN THE WORLD IS BECAUSE PEOPLE HAVE GOTTEN TOGETHER AND  
9 BASICALLY FIGURED OUT HOW ALL THESE DEVICES WORK TOGETHER. HOW  
10 DOES A NETWORK WORK TOGETHER WITH A DEVICE? HOW DOES A DEVICE  
11 AUTHENTICATE?

12 SO IT'S AS IF THEY GOT TOGETHER AND DETERMINED WHAT TYPE  
13 OF LANGUAGE THEY WANTED TO SPEAK. AND WHAT WE DO IS WE DO A  
14 BIG PORTION OF THE GRAMMAR OF THAT LANGUAGE AND WE ESSENTIALLY  
15 LICENSE THAT TO PEOPLE AND SHARE IT WITH THE STANDARDS BODIES.

16 AND SO ULTIMATELY, YOU KNOW, IF YOU LOOK AT 5G, FOR  
17 EXAMPLE, THERE'S A WHOLE CLASS OF TECHNOLOGY THAT DEFINES THE  
18 SECURITY FRAMEWORK THAT ALLOWS, LET'S SAY, A DEVICE TO CONNECT  
19 TO THE NETWORK SECURELY ONE WAY OR THE OTHER. IT ACTUALLY  
20 ISN'T EMBODIED IN THE CHIP, IT'S NOT EMBODIED IN THE PHONE.  
21 IT'S ACTUALLY SOMETHING THAT'S IN BETWEEN ALL OF THOSE THINGS.

22 QUALCOMM DOES A LOT OF THAT WORK. WE ACTUALLY DO ALL THAT  
23 FUNDAMENTAL WORK. THE SECURITY FRAMEWORK IN 5G IS A BIG  
24 EXAMPLE OF A BIG CLASS OF I.P. THAT WE WORK ON.

25 SO IT'S PRETTY COMPLICATED.

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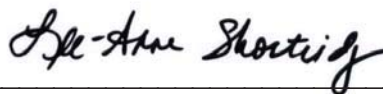
CERTIFICATE OF REPORTERS

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UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF  
CALIFORNIA, 280 SOUTH FIRST STREET, SAN JOSE, CALIFORNIA, DO  
HEREBY CERTIFY:

THAT THE FOREGOING TRANSCRIPT, CERTIFICATE INCLUSIVE, IS  
A CORRECT TRANSCRIPT FROM THE RECORD OF PROCEEDINGS IN THE  
ABOVE-ENTITLED MATTER.



IRENE RODRIGUEZ, CSR, CRR  
CERTIFICATE NUMBER 8076



LEE-ANNE SHORTRIDGE, CSR, CRR  
CERTIFICATE NUMBER 9595

DATED: JANUARY 11, 2019

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UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA  
SAN JOSE DIVISION

FEDERAL TRADE COMMISSION, ) C-17-00220 LHK  
)  
PLAINTIFF, ) SAN JOSE, CALIFORNIA  
)  
VS. ) JANUARY 18, 2019  
)  
QUALCOMM INCORPORATED, A ) VOLUME 7  
DELAWARE CORPORATION, )  
) PAGES 1343-1584  
DEFENDANT. ) **SEALED PAGES** 1473-1477,  
1570-1573

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TRANSCRIPT OF PROCEEDINGS  
BEFORE THE HONORABLE LUCY H. KOH  
UNITED STATES DISTRICT JUDGE

A P P E A R A N C E S:

FOR THE PLAINTIFF: FEDERAL TRADE COMMISSION  
BY: JENNIFER MILICI  
DANIEL J. MATHESON  
WESLEY G. CARSON  
KENT COX  
NATHANIEL M. HOPKIN  
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CERTIFICATE NUMBER 9595  
IRENE RODRIGUEZ, CSR, CRR, RMR  
CERTIFICATE NUMBER 8074

PROCEEDINGS RECORDED BY MECHANICAL STENOGRAPHY  
TRANSCRIPT PRODUCED WITH COMPUTER

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1 CONFUSION.

2 CAN WE GO AHEAD WITH YOUR LINE OF QUESTIONING? LET'S JUST  
3 PICK UP WHERE YOU LEFT OFF. I APOLOGIZE I MAY HAVE CAUSED MORE  
4 PROBLEMS.

5 MR. BORNSTEIN: THAT'S FINE, YOUR HONOR, ALTHOUGH  
6 WE'RE ALL HERE TO MAKE SURE THAT YOUR HONOR GETS MR. GONELL'S  
7 TESTIMONY. SO IF THERE'S SOMETHING THAT IS UNCLEAR, I WANT TO  
8 BE SURE THAT THAT DOES GET RESOLVED.

9 THE COURT: I'M OKAY. LET'S GO AHEAD AND GO ON. I  
10 APOLOGIZE FOR THE INTERRUPTION.

11 MR. BORNSTEIN: SURE.

12 Q. SO YOU HAD BEEN TALKING ABOUT SOME OF THE PRACTICAL  
13 CONSEQUENCES OF LICENSING AT MULTIPLE LEVELS OF THE VALUE  
14 CHAIN.

15 ARE THERE ANY OTHER REASONS BESIDES AVOIDING THOSE  
16 PRACTICAL CONSEQUENCES, IN THE INDUSTRY PRACTICE YOU'VE  
17 DESCRIBED, THAT QUALCOMM LICENSES DEVICE MAKERS RATHER THAN  
18 CHIP MAKERS?

19 A. WELL, IT'S MORE ECONOMICALLY EFFICIENT IN THAT YOU GET  
20 CLOSER TO THE ACTUAL VALUE OF THE LICENSE, THE VALUE OF THE  
21 TECHNOLOGY WHEN YOU'RE LICENSING AT THE DEVICE LEVEL THAN YOU  
22 CAN AS A PRACTICAL MATTER WHEN YOU'RE DOING LICENSING AT AN  
23 UPSTREAM, SAY, COMPONENT LEVEL.

24 Q. SO IN YOUR TIME AT THE COMPANY, HAVE YOU NEGOTIATED ANY  
25 KIND OF PATENT AGREEMENTS AT THE CHIP LEVEL?

1 A. YES, I HAVE.

2 Q. HOW COMMON OR UNCOMMON IS THAT?

3 A. IT'S NOT VERY COMMON. BUT IT ARISES FROM TIME TO TIME,  
4 AND I'VE DONE IT FROM TIME TO TIME.

5 Q. AND HAVE YOU HAD DISCUSSIONS WITH A COMPANY CALLED  
6 MEDIATEK?

7 A. YES, I'VE BEEN INVOLVED IN NEGOTIATIONS WITH MEDIATEK.

8 Q. CAN YOU DESCRIBE WHAT KIND OF AGREEMENT YOU DISCUSSED WITH  
9 MEDIATEK AND HOW THAT CAME TO BE?

10 A. YES. WHEN I ARRIVED AT QTL, MEDIATEK ALREADY HAD SOME SET  
11 OF AGREEMENTS, TWO AGREEMENTS, WITH QUALCOMM THAT WERE PATENT  
12 AGREEMENTS OF SOME KIND.

13 IT CAME TO PASS THAT THEY WROTE US A LETTER SAYING THAT  
14 THEY WANTED TO DISCUSS THOSE AGREEMENTS AND LICENSING WITH US.

15 AFTER SOME CORRESPONDENCE, WE WENT TO MEET WITH THEM AND  
16 DISCUSS WHAT THEY WANTED.

17 Q. AND WHAT DID YOU LEARN FROM THAT MEETING?

18 A. IT QUICKLY BECAME APPARENT TO ME AT THE MEETING THAT THEY  
19 WERE NOT INTERESTED IN DISCUSSING WITH US A LICENSE UNDER WHICH  
20 THEY WOULD PAY US ROYALTIES.

21 WHAT THEY REALLY WERE AFTER, WHAT THEY WANTED TO DO WAS IN  
22 SOME WAY RENEGOTIATE AND GET OUT FROM UNDER THE AGREEMENTS THAT  
23 WERE ALREADY -- THAT THEY HAD ALREADY ENTERED INTO WITH US.

24 Q. AND WHAT HAPPENED?

25 A. WELL, WE -- THE DISCUSSIONS TURNED TO THAT TOPIC, TO

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1 RENEGOTIATING THOSE AGREEMENTS, AND WE EVENTUALLY REACHED  
2 AGREEMENT ON AMENDMENTS THAT BASICALLY HAD THE EFFECT OF  
3 REDUCING THE OBLIGATIONS ON BOTH SIDES PRETTY DRASTICALLY,  
4 GIVING EACH SIDE AN OPTION TO REINSTATE THE OLD AGREEMENTS, BUT  
5 IF NOBODY EXERCISED THAT OPTION IN THREE YEARS, THEN EVERYTHING  
6 WOULD GO AWAY.

7 Q. AND SO WHAT HAPPENED AT THE END OF THIS THREE YEAR PERIOD?

8 A. EVERYTHING WENT AWAY. NOBODY DID ANYTHING. NOBODY  
9 EXERCISED OPTIONS AND EVERYTHING WENT AWAY.

10 Q. DID MEDIATEK HAVE THE RIGHT, ON ITS OWN, TO CONTINUE TO  
11 RECEIVE RIGHTS OF SOME KIND FROM QUALCOMM UNDER THIS AGREEMENT?

12 A. IF THEY HAD EXERCISED ITS OPTION TO REINSTATE THE OLD  
13 AGREEMENTS, YES, THEY WOULD HAVE RETURNED TO FULL FORCE AND  
14 EFFECT AND MEDIATEK WOULD HAVE HAD THE RIGHTS THAT IT HAD.

15 Q. AND WAS THAT AN OPTION THAT THEY COULD EXERCISE  
16 UNILATERALLY IF THEY WANTED TO?

17 A. YES.

18 Q. DID MEDIATEK EVER APPROACH QUALCOMM TO SAY, WE WANT TO  
19 CONTINUE HAVING SOME KIND OF RIGHTS TO YOUR I.P. BEFORE THIS  
20 AGREEMENT EXPIRED?

21 A. NO, THEY DIDN'T.

22 Q. DID YOU HAVE DISCUSSIONS WITH SAMSUNG ABOUT A CHIP LEVEL  
23 AGREEMENT?

24 A. YES.

25 Q. AND HOW DID THOSE BEGIN?

1 THOSE OEM'S, WE DON'T EVEN HAVE A LEGAL BASIS TO MAKE SUCH AN  
2 INFRINGEMENT CLAIM, AND OBVIOUSLY IT'S NOT IN YOUR COMMERCIAL  
3 INTEREST TO MAKE A BASELESS CLAIM.

4 MR. MERBER: OBJECTION. HE'S OFFERING A LEGAL  
5 OPINION.

6 THE COURT: OKAY. GIVE ME A MINUTE TO LOOK AT THIS  
7 MORE CLOSELY.

8 (PAUSE IN PROCEEDINGS.)

9 THE COURT: WHAT'S YOUR RESPONSE?

10 MR. BORNSTEIN: THE QUESTION IS TO ASK ABOUT HIS VIEW  
11 OF THE COMPANY'S COMMERCIAL INTEREST, AND HE'S PROVIDING AN  
12 ANSWER RELATING TO WHAT HAS INFORMED HIS VIEW REGARDING THE  
13 COMPANY'S COMMERCIAL INTEREST.

14 MR. MERBER: MY OBJECTION WAS TO THE PART OF THE  
15 ANSWER IN WHICH HE DESCRIBED THE COMPANY'S LEGAL CLAIMS AND  
16 WHICH LEGAL CLAIMS WOULD EXIST, NOT TO THAT ASPECT OF THE  
17 QUESTION.

18 THE COURT: WHAT'S YOUR RESPONSE TO THAT?

19 MR. BORNSTEIN: SO HE'S REFERRING TO THE RIGHTS THAT  
20 HE UNDERSTANDS THE COMPANY HAS AND DOESN'T HAVE UNDER  
21 AGREEMENTS THAT HE'S BEEN RESPONSIBLE FOR PUTTING INTO PLACE.

22 THE COURT: WHAT'S YOUR SPECIFIC OBJECTION? TO WHICH  
23 PORTION?

24 MR. MERBER: HE WAS TESTIFYING ABOUT WHAT LEGAL CLAIM  
25 WOULD OR WOULD NOT EXIST FOR THE COMPANY IN THE EVENT THAT

1 LICENSE A LICENSED OEM PURCHASED A CHIP FROM AN UNLICENSED CHIP  
2 MAKER. HE WAS TESTIFYING ABOUT WHETHER THERE WOULD BE A LEGAL  
3 CLAIM FOR INFRINGEMENT AGAINST THAT CHIP MAKER.

4 MR. BORNSTEIN: WELL, I CAN ASK THE QUESTION THIS  
5 WAY.

6 THE COURT: OKAY. PLEASE GO AHEAD. I'LL SUSTAIN IT.

7 MR. BORNSTEIN: THANK YOU.

8 Q. I'LL ASK THE QUESTION THIS WAY. IN THE LICENSE AGREEMENTS  
9 THAT YOU'RE --

10 MR. MERBER: UNLESS QUALCOMM IS INTERESTED IN WAIVING  
11 PRIVILEGE ON HIS OPINIONS IN THAT TIMEFRAME.

12 BY MR. BORNSTEIN:

13 Q. IN THE LICENSE AGREEMENTS THAT YOU NEGOTIATED THAT YOU  
14 WERE DESCRIBING, CAN YOU EXPLAIN WHAT THE LICENSE AGREEMENTS  
15 PROVIDE WITH RESPECT TO THE RIGHTS THAT ARE GRANTED TO THE OEM  
16 RELATING TO ITS ABILITY TO HAVE -- TO PURCHASE CHIPS FROM THIRD  
17 PARTIES?

18 A. THE LICENSES PROVIDE, IN THE LANGUAGE OF THE LICENSES, FOR  
19 SOMETHING CALLED HAVE MADE RIGHTS. AND WHEN THE TOPIC OF WHAT  
20 THIS -- WHAT DOES THIS MEAN HAS COME UP IN DISCUSSIONS WITH  
21 LICENSEES UNDER THE TYPES OF AGREEMENTS I'M TALKING ABOUT, WHAT  
22 WE'VE TOLD THEM, WHAT I PERSONALLY HAVE TOLD THEM IS THAT THIS  
23 IS -- THIS PROVISION PROVIDES HAVE MADE RIGHTS UNDER QUALCOMM'S  
24 PATENTS FOR THE CHIPS --

25 THE COURT: I'M SORRY TO INTERRUPT YOU.

(PAUSE IN PROCEEDINGS.)

THE COURT: OKAY. GO AHEAD, PLEASE. SORRY FOR THE  
INTERRUPTION.

THE WITNESS: I'VE EXPLAINED TO THEM THAT THE PURPOSE  
OF THIS PROVISION IS TO PROVIDE RIGHTS UNDER QUALCOMM'S PATENTS  
THAT COVER THEIR PURCHASES OF CHIPS FROM PEOPLE OTHER THAN  
QUALCOMM.

BY MR. BORNSTEIN:

Q. AND ARE THERE ANY OTHER REASONS WHY YOU BELIEVE IT WOULD  
NOT BE IN QUALCOMM'S COMMERCIAL INTEREST TO ASSERT CELLULAR  
SEPS AGAINST OTHER MODEM CHIP SUPPLIERS?

A. YES. BECAUSE IT'S COUNTER TO THE FOUNDATIONAL DEVICE  
LEVEL LICENSING OF OUR LICENSING PROGRAM.

IF YOU ASSERT AGAINST A CHIP SUPPLIER A CELLULAR ESSENTIAL  
PATENT, YOU NEED TO BE PREPARED TO LICENSE THOSE PATENTS TO THE  
CHIP MAKER.

AND FOR ALL THE REASONS I EXPLAINED WHY MULTI LEVEL  
LICENSING IS INEFFICIENT, WE DON'T WANT TO DO IT AND IF YOU  
ASSERT, THAT'S WHAT YOU'RE SIGNING ON TO. YOU'RE SIGNING ON TO  
MULTI LEVEL LICENSING.

Q. SO I'M GOING TO MOVE FROM THE SUBJECT OF GENERAL PRACTICES  
TO A COUPLE OF SPECIFIC NEGOTIATIONS.

I'LL START WITH ASKING WHETHER YOU WERE INVOLVED IN  
LICENSE NEGOTIATIONS WITH SONY MOBILE IN 2012?

A. YES, I WAS.



1 Q. OKAY. AND JUST AT A VERY BRIEF LEVEL, WHAT WAS THE  
2 PRECIPITATING EVENT FOR THOSE NEGOTIATIONS?

3 A. SO VERY BRIEFLY, SONY MOBILE USED TO BE SONY ERICSSON. IT  
4 WAS A JOINT VENTURE BETWEEN ERICSSON AND SONY. ERICSSON  
5 DIVESTED ITS SHARE TO SONY, AND SO SONY ERICSSON BECAME SONY  
6 MOBILE, WHICH IS JUST A SONY ENTITY. AND THAT CAUSED  
7 CONSEQUENCES IN THEIR AGREEMENTS, AND THAT'S WHY WE HAD  
8 NEGOTIATIONS.

9 Q. AND SPECIFICALLY WHY DID THAT PRECIPITATE NEGOTIATIONS?

10 A. WELL, SPECIFICALLY BECAUSE SONY ERICSSON HAD BEEN  
11 OPERATING UNDER ERICSSON'S AGREEMENT.

12 ONCE IT BECAME SONY MOBILE AND ERICSSON WAS NO LONGER  
13 INVOLVED, THAT AGREEMENT NO LONGER APPLIED AND SO THEN WE HAD  
14 TO LOOK ELSEWHERE FOR THEIR LICENSING -- FOR THEIR LICENSING  
15 RIGHTS.

16 Q. SO AT THAT POINT --

17 A. AND THERE WERE OTHER -- THERE WERE OTHER AGREEMENTS THAT  
18 APPLIED, BUT FOR WCDMA, THEY BECAME UNLICENSED AT THE TIME OF  
19 THE DIVESTITURE.

20 Q. SO AT THE TIME OF THE DIVESTITURE, WERE THEY STILL  
21 LICENSED FOR CDMA?

22 A. YES, BECAUSE THERE WAS A PREEXISTING SONY AGREEMENT THAT  
23 WHEN THE DIVESTITURE HAPPENED, BEGAN TO APPLY TO THE NEW  
24 ENTITY. SO THEY HAD CDMA COVERAGE.

25 Q. DURING THESE NEGOTIATIONS, DID SONY MOBILE EVER BECOME

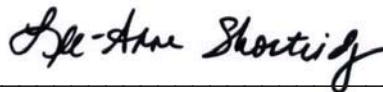
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CERTIFICATE NUMBER 8076



LEE-ANNE SHORTRIDGE, CSR, CRR  
CERTIFICATE NUMBER 9595

DATED: JANUARY 18, 2019

A342

**Dissenting Statement of Commissioner Maureen K. Ohlhausen**

In the Matter of Qualcomm, Inc.

File No. 141-0199

January 17, 2017

My practice is not to write dissenting statements when the Commission, against my vote, authorizes litigation. That policy reflects several principles. It preserves the integrity of the agency's mission, recognizes that reasonable minds can differ, and supports the FTC's staff, who litigate demanding cases for consumers' benefit. On the rare occasion when I do write, it has been to avoid implying that I disagree with the complaint's theory of liability.<sup>1</sup>

I do not depart from that policy lightly. Yet, in the Commission's 2-1 decision to sue Qualcomm, I face an extraordinary situation: an enforcement action based on a flawed legal theory (including a standalone Section 5 count) that lacks economic and evidentiary support, that was brought on the eve of a new presidential administration, and that, by its mere issuance, will undermine U.S. intellectual property rights in Asia and worldwide. These extreme circumstances compel me to voice my objections.

The core theory of the complaint is that Qualcomm uses its alleged chipset monopoly to force its customers—smartphone manufacturers (OEMs)—to pay unreasonably high royalties to license FRAND-encumbered patents that are essential to practicing CDMA and LTE cellular communications standards. Because OEMs have to pay those royalties regardless of which chipset manufacturers they purchase from, the alleged effect is to squeeze the margins of Qualcomm's competitors in chipsets. Qualcomm allegedly implements that strategy through its “no license – no chips” policy and refusal to license its chipset-maker rivals. The fundamental element of this theory is a royalty overcharge. If Qualcomm charges reasonable royalties for its patents, then there is no anticompetitive “tax”—the complaint's nomenclature for a price squeeze—but only the procompetitive monetization of legitimate patent rights. Importantly, there is no suggestion that Qualcomm charges higher royalties to OEMs that buy non-Qualcomm chipsets.<sup>2</sup> Hence, the complaint's taxation theory requires that Qualcomm charge OEMs unreasonably high royalties.

Rather than allege that Qualcomm charges above-FRAND royalties, the complaint dances around that essential element. It alleges that Qualcomm's practices disrupt license challenges and bargaining in the shadow of law, and that the ensuing royalties are “elevated.” But the complaint fails to allege that Qualcomm charges more than a reasonable royalty. That pleading failure is no accident; it speaks to the dearth of evidence in this case. Although the complaint frames its price-squeeze claim as a “tax”, it overlooks the fact that reasonable royalties are not an exclusionary tax, even if paid by competitors. And it includes no allegation of below-cost pricing (presumably of chipsets) by Qualcomm, even if one infers an antitrust duty to deal

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<sup>1</sup> See, e.g., Dissenting Statement of Commissioner Maureen K. Ohlhausen *In re* Endo Pharma. Inc., Mar. 31, 2016, <https://www.ftc.gov/public-statements/2016/03/dissenting-statement-commissioner-maureen-k-ohlhausen-matter-endo>. Of course, I have written dissents in connection with settlements.

<sup>2</sup> The complaint alleges that Qualcomm granted Apple royalty relief as part of an exclusive-dealing agreement. That alleged conduct, however, is not part of the complaint's taxation theory.

with chipset manufacturers. *Pacific Bell Tel. Co. v. Linkline Comm'cns, Inc.*, 555 U.S. 438, 451-52 (2009).

I have been presented with no robust economic evidence of exclusion and anticompetitive effects, either as to the complaint's core "taxation" theory or to associated allegations like exclusive dealing.<sup>3</sup> What I have been presented with is simply a possibility theorem.

It is no answer to an unsupported Sherman Act theory to bring an amorphous standalone Section 5 claim based on the same conduct. Today's decision unfortunately bears out my concerns that the Commission's 2015 statement was too vague and abbreviated to discipline Section 5 enforcement.<sup>4</sup>

For these reasons, I vote "no."

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<sup>3</sup> I have supported exclusive-dealing cases where the evidence provides reason to believe that a violation occurred. See *In re* McWane, Inc., FTC Dkt. No. 9351, Jan. 30, 2014, *aff'd sub nom* McWane, Inc. v. Fed. Trade Comm'n, 783 F.3d 814 (11th Cir. 2015); *In re* Victrex plc, FTC File No. 141-0042, Compl., July 14, 2016, <https://www.ftc.gov/enforcement/cases-proceedings/141-0042/victrex-plc-et-al-matter>.

<sup>4</sup> See Dissenting Statement of Commissioner Maureen K. Ohlhausen – FTC Section 5 Policy Statement, Aug. 13, 2015, <https://www.ftc.gov/public-statements/2015/08/dissenting-statement-commissioner-ohlhausen-ftc-act-section-5-policy>; Remarks of Commissioner Maureen K. Ohlhausen, A SMARTER Section 5, Sept. 25, 2015, <https://www.ftc.gov/public-statements/2015/09/smarter-section-5>.

UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA  
SAN JOSE DIVISION

FEDERAL TRADE COMMISSION, ) C-17-00220 LHK  
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VS. ) JANUARY 7, 2019  
)  
QUALCOMM INCORPORATED, A ) VOLUME 2  
9 DELAWARE CORPORATION, )  
) PAGES 160-407  
10 DEFENDANT. )  
) **SEALED PAGES 368 - 407**

---

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PROCEEDINGS RECORDED BY MECHANICAL STENOGRAPHY  
TRANSCRIPT PRODUCED WITH COMPUTER

A345

1 IPR TOPIC, I'D LIKE TO UNDERSTAND MORE. OBVIOUSLY IT'S A  
2 NUANCED POSITION, BUT HERE'S HOW I PARSE IT."

3 AND THEN YOU SEE THERE'S SEVERAL POINTS BELOW THAT?

4 A. YEAH, I SEE THAT.

5 Q. SO THEN YOU WROTE IN POINT NUMBER 1, "WHEN IT COMES TO  
6 ESSENTIAL IPR AS RELATES TO DECLARED IPR FOR STANDARDS (E.G.,  
7 UMTS, HSPA, LTE, GSM, H.265, ET CETERA), WE ARE NOT IN A  
8 POSITION TO OFFER ANY INDEMNIFICATION/COVERAGE SINCE WE ARE NOT  
9 THE SPECIAL PATENT HOLDERS -- HOWEVER THE KEY POINT IS THAT  
10 RESPONSIBILITY FOR THE NECESSARY LICENSES FOR THESE SPECIAL  
11 PATENTS RESTS WITH THE OEM/ODM/BRAND AND SHOULD BE INDEPENDENT  
12 OF WHATEVER CHIPSET IS INCLUDED."

13 THAT WAS AN ACCURATE STATEMENT OF YOUR UNDERSTANDING AT  
14 THE TIME; CORRECT?

15 A. YEAH. I THINK I WAS TRYING TO REFLECT MY UNDERSTANDING OF  
16 HOW THE CELLULAR INDUSTRY WORKED IN THIS REGARD.

17 Q. AND THEN IN PARAGRAPH NUMBER 4, TOWARDS THE BOTTOM OF  
18 PAGE, YOU WROTE, "OUR POSITION SHOULD BE THAT ZTE SHOULD HAVE  
19 THE NECESSARY LICENSES TO PATENTS (ESSENTIAL AND NON-ESSENTIAL)  
20 IN PLACE ALREADY TO ENABLE THEM TO SELL MOBILE DEVICES TO  
21 T-MOBILE IN THE U.S."

22 THAT ACCURATELY CAPTURES WHAT YOU THOUGHT YOUR POSITION  
23 SHOULD BE AT THAT TIME; CORRECT?

24 A. YEAH. I THINK I WAS TRYING TO HELP MY TEAMMATE NAVIGATE  
25 THIS QUESTION ON THE IPR ISSUE FROM THE OPERATOR AT THE TIME,

1 YES.

2 Q. AND THEN ON THE PAGE IN SUBPARAGRAPH A, YOU WROTE, "MY  
3 ASSUMPTION HERE IS THAT ZTE WOULD PAY A ROYALTY TO QUALCOMM FOR  
4 EVERY 3G OR LTE DEVICE SHIPPED -- INDEPENDENT OF WHETHER IT IS  
5 A MEDIATEK OR QUALCOMM CHIP -- THAT IS FOR THE USE OF ANY/ALL  
6 QUALCOMM I.P."

7 DO YOU SEE THAT?

8 A. YES, I SEE THAT.

9 Q. THAT ACCURATELY STATES WHAT YOUR ASSUMPTION WAS IN 2014;  
10 CORRECT?

11 A. YEAH, I THINK THAT'S FAIR.

12 Q. AND THAT REMAINED YOUR ASSUMPTION AS OF YOUR DEPOSITION;  
13 RIGHT?

14 A. YEAH, I THINK SO.

15 Q. AND IT WAS ALSO YOUR UNDERSTANDING THAT THE SAME PRINCIPLE  
16 SHOULD HOLD TRUE FOR ANY OTHER NECESSARY I.P. HOLDERS BESIDES  
17 QUALCOMM; RIGHT?

18 A. YEAH, I THINK THAT WAS THE ASSUMPTION, YES.

19 Q. MR. MOYNIHAN, PLEASE TURN TO THE LAST E-MAIL IN TIME IN  
20 THIS CHAIN. THAT'S THE ONE DATED MAY 8, 2014, AT 9:13 P.M.

21 A. YEP, I SEE IT.

22 Q. IF YOU LOOK AT THE PARAGRAPH NUMBER 2, YOU WROTE THERE, "A  
23 FEW YEARS AGO THERE WAS SOME LAWSUITS, I RECALL THE KEY CASE  
24 WAS INVOLVING LG, INTEL AND QUANTUM, THAT ESTABLISHED THE  
25 CONCEPT OF PATENT EXHAUSTION, I.E., IF THE IPR IS LICENSED AT

1 THE CHIPSET AND IT BECAME EXHAUSTED, THEN THE IPR HOLDER CAN NO  
2 LONGER CLAIM ROYALTIES FROM ANYONE ELSE IN THE CHAIN."

3 DO YOU SEE THAT?

4 A. YES, I DO.

5 Q. AND THEN YOU WROTE, "I BELIEVE THESE RULINGS CAUSED MANY  
6 OF THE IPR HOLDERS TO REWORK THEIR LICENSE AGREEMENTS AND  
7 POLICIES AND IN MY EXPERIENCE THEY NOW GO OUT OF THEIR WAY TO  
8 MAKE IT ABSOLUTELY CLEAR THAT THEY ARE NOT LICENSING TO THE  
9 CHIPSET COMPANY."

10 THAT STATEMENT ACCURATELY REFLECTS YOUR UNDERSTANDING OF  
11 THE INDUSTRY IN 2014; CORRECT?

12 A. CORRECT.

13 Q. AND THEN YOU WROTE, "FOR EXAMPLE I WORKED ON THE MPA  
14 AGREEMENT WITH NOKIA AND THERE IS LANGUAGE IN THERE WRITTEN  
15 OVER AND OVER THAT NOTHING IN THE AGREEMENTS GIVES MEDIATEK ANY  
16 RIGHTS TO THE NOKIA IPR."

17 AND THEN YOU ADDED, "BUT IT IS EXTREMELY IMPORTANT FOR  
18 THEM THAT THEIR IPR IS NOT SEEN TO BE LICENSED TO THE CHIPSET  
19 COMPANIES."

20 THAT ACCURATELY REFLECTS THE POSITION THAT NOKIA TOOK IN  
21 THEIR NEGOTIATIONS WITH YOU; CORRECT?

22 A. YEAH. I'M BEING DRAMATIC, YES.

23 Q. FURTHER DOWN ON THE PAGE IN THE FIRST BULLET POINT, YOU  
24 WROTE, "ALL ESSENTIAL IPR IS TYPICALLY LICENSED BY IPR HOLDERS  
25 TO THE END DEVICE MANUFACTURER."



1            THAT STATEMENT ACCURATELY REFLECTS YOUR UNDERSTANDING OF  
2            THE INDUSTRY IN 2014 AS WELL; CORRECT?

3            A.    YEAH, FOR CELLULAR STUFF, CELLULAR INDUSTRY, YES, THAT'S  
4            MY UNDERSTANDING.

5            Q.    AND THE LAST BULLET POINT ON THAT PAGE, YOU WROTE, "THERE  
6            ARE OTHER LEGAL STRUCTURES THAT CAN BE USED BETWEEN  
7            SEMICONDUCTOR COMPANIES, E.G. COVENANT NOT TO SUE -- BASICALLY  
8            AN AGREEMENT THAT MEANS THE COMPANIES AGREE NOT TO SUE EACH  
9            OTHER ON PATENTS."

10           DO YOU SEE THAT LANGUAGE?

11           A.    YES, I DO.

12           Q.    AND IT'S YOUR UNDERSTANDING THAT THAT IS THE TYPE OF  
13           AGREEMENT THAT WAS IN PLACE IN 2009 AND FOR SOME YEARS  
14           THEREAFTER BETWEEN QUALCOMM AND MEDIATEK; CORRECT?

15           A.    CORRECT.

16           Q.    MR. MOYNIHAN, MEDIATEK HAS MADE INCENTIVE PAYMENTS TO  
17           OEM'S FROM TIME TO TIME; RIGHT?

18           A.    YES.

19           Q.    THOSE INCENTIVE PAYMENTS ARE SOMETIMES CALLED MARKET  
20           DEVELOPMENT FUNDS, OR MDF'S?

21           A.    CORRECT.

22           Q.    FOR EXAMPLE, IN 2016, MEDIATEK ENTERED INTO AN MDF  
23           ARRANGEMENT WITH SONY; RIGHT?

24           A.    PERHAPS. I DON'T KNOW. I DON'T REMEMBER THE EXACT  
25           TIMEFRAME.

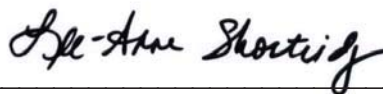
CERTIFICATE OF REPORTERS

WE, THE UNDERSIGNED OFFICIAL COURT REPORTERS OF THE  
UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF  
CALIFORNIA, 280 SOUTH FIRST STREET, SAN JOSE, CALIFORNIA, DO  
HEREBY CERTIFY:

THAT THE FOREGOING TRANSCRIPT, CERTIFICATE INCLUSIVE, IS  
A CORRECT TRANSCRIPT FROM THE RECORD OF PROCEEDINGS IN THE  
ABOVE-ENTITLED MATTER.



IRENE RODRIGUEZ, CSR, CRR  
CERTIFICATE NUMBER 8076



LEE-ANNE SHORTRIDGE, CSR, CRR  
CERTIFICATE NUMBER 9595

DATED: JANUARY 7, 2019

A350

UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA  
SAN JOSE DIVISION

FEDERAL TRADE COMMISSION, ) C-17-00220 LHK  
)  
PLAINTIFF, ) SAN JOSE, CALIFORNIA  
)  
VS. ) JANUARY 22, 2019  
)  
QUALCOMM INCORPORATED, A ) VOLUME 8  
DELAWARE CORPORATION, )  
) PAGES 1585-1828  
DEFENDANT. )  
\_\_\_\_\_ )

TRANSCRIPT OF PROCEEDINGS  
BEFORE THE HONORABLE LUCY H. KOH  
UNITED STATES DISTRICT JUDGE

A P P E A R A N C E S:

FOR THE PLAINTIFF: FEDERAL TRADE COMMISSION  
BY: JENNIFER MILICI  
DANIEL J. MATHESON  
WESLEY G. CARSON  
KENT COX  
NATHANIEL M. HOPKIN  
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IRENE RODRIGUEZ, CSR, CRR, RMR  
CERTIFICATE NUMBER 8074

PROCEEDINGS RECORDED BY MECHANICAL STENOGRAPHY  
TRANSCRIPT PRODUCED WITH COMPUTER

A351

1 SO YOU PREVIOUSLY HAD TWO EXPERTS TO TESTIFY ON THAT  
2 QUESTION. THOSE TWO WILL NOT TESTIFY. SO NOW YOU WANT THIS  
3 FACT WITNESS TO PROVIDE THIS INFORMATION?

4 MR. TAFFET: FROM HIS UNDERSTANDING, YES.

5 THE COURT: ALL RIGHT. I'LL OVERRULE THE OBJECTION  
6 AND ALLOW THE TESTIMONY.

7 GO AHEAD, PLEASE.

8 BY MR. TAFFET:

9 Q. LET ME RESTATE THE QUESTION.

10 A. THANK YOU.

11 Q. BASED UPON YOUR UNDERSTANDING, WHICH IS BECAUSE OF YOUR  
12 EXPERIENCE, ET CETERA, DOES DEVICE LEVEL LICENSING -- IS DEVICE  
13 LEVEL LICENSING CONSISTENT WITH THE OBJECTIVES OF 6.1?

14 THE COURT: CAN I ASK YOU A QUESTION? I'M NOT CLEAR  
15 ON WHAT THE BASIS OF HIS UNDERSTANDING IS. IS IT JUST WHAT  
16 HE'S HEARD OTHER COMPANIES SAY AT THESE MEETINGS AND DURING  
17 THEIR PRESENTATIONS? IS THAT THE -- THAT'S THE BASIS OF HIS  
18 UNDERSTANDING OF WHAT THEY DO. SO WHAT'S THE BASIS OF HIS  
19 UNDERSTANDING OF WHETHER DEVICE LEVEL LICENSING IS CONSISTENT  
20 WITH THE OBJECTIVES OF THE ETSI POLICY? BECAUSE THAT MIGHT BE  
21 DIFFERENT THAN JUST WHAT HE'S HEARD --

22 MR. TAFFET: IT --

23 THE COURT: -- OTHER COMPANY'S PRACTICES ARE.

24 MR. TAFFET: SORRY TO INTERRUPT, YOUR HONOR. BUT I  
25 BELIEVE IT IS, BECAUSE I THINK IT'S ALSO BASED UPON HIS 30-PLUS

1 YEARS OF EXPERIENCE IN THE INDUSTRY, THE FACT THAT HE WAS  
2 CHAIRING --

3 THE COURT: WELL, I DON'T WANT YOU TO TESTIFY. WHY  
4 DON'T YOU ASK HIM WHAT IS THE BASIS OF HIS UNDERSTANDING --

5 MR. TAFFET: SURE.

6 THE COURT: -- OF WHETHER DEVICE LEVEL LICENSING IS  
7 CONSISTENT WITH THE OBJECTIVES OF THE ETSI POLICY.

8 IF IT'S JUST THAT HE'S HEARD OTHER COMPANIES SAY THAT,  
9 THEN I'D JUST LIKE TO KNOW WHAT THE BASIS OF HIS UNDERSTANDING  
10 IS.

11 MR. TAFFET: SURE, ABSOLUTELY.

12 Q. MR. WEILER, WHAT IS THE BASIS OF YOUR UNDERSTANDING  
13 WHETHER DEVICE LEVEL LICENSING IS CONSISTENT WITH THE  
14 OBJECTIVES OF CLAUSE 6.1?

15 A. MAY I TURN FIRST TO THE OBJECTIVES? ETSI IS IN THE  
16 COMFORTABLE POSITION TO HAVE A POLICY WHICH IS NOT ONLY THE  
17 LEGAL TEXT, BUT ALSO GIVING THE REASON WHY, WHAT ARE THESE  
18 POLICY OBJECTIVES.

19 AND THIS IS CONTAINED IN CLAUSE 3 OF THE ETSI IPR POLICY.

20 AND THESE OBJECTIVES SAY THAT ETSI WANTS THE MOST SUITABLE  
21 TECHNOLOGY TO BE IMPLEMENTED IN THIS CONDUCT. THEY WANT THESE  
22 TECHNOLOGIES TO BE, AND THESE STANDARDS TO BE ABLE TO BE  
23 IMPLEMENTED BY EVERYBODY AND NOT BE BLOCKED BY ANY PATENT WHICH  
24 IS NOT AVAILABLE.

25 BUT AT THE SAME TIME, ETSI'S OBJECTIVES IN 3.2 ALSO VERY

1 EXPLICITLY SAY THAT THE IPR HOLDERS SHOULD BE FAIRLY REWARDED  
2 FOR THEIR WILLINGNESS TO CONTRIBUTE THEIR TECHNOLOGY INTO THE  
3 STANDARD.

4 AND THESE THREE ELEMENTS -- SO BEST TECHNOLOGY,  
5 AVAILABILITY TO EVERYBODY FOR IMPLEMENTATION OF THIS, AND  
6 THIRDLY, THE FAIR REWARD -- IS THEN IMPLEMENTED IN CLAUSE 6.1  
7 WHERE YOU ARE ASKED TO GIVE LICENSES ON FRAND TERMS TO AT LEAST  
8 TO THE EQUIPMENT DEVICE LEVEL.

9 AND, THEREFORE, IN ORDER TO ACHIEVE THE OBJECTIVE TO GET A  
10 FAIR REWARD TO OBLIGE THE PATENT HOLDER TO LICENSE ON FAIR AND  
11 NON-DISCRIMINATORY TERMS, YOU HAVE TO DESIGN A LICENSING  
12 PROGRAM WHICH FULFILLS THIS OBLIGATION, AND IT IS OBVIOUS THAT  
13 EVERYBODY CAN IMPLEMENT A STANDARD AND CONTRIBUTE COMPONENTS OF  
14 THE STANDARD INTO A DEVICE AND YOU THEN LICENSE THE DEVICE  
15 LEVEL ONLY, AND, THEREFORE, ALL THE IMPLEMENTATION GOING INTO  
16 THIS DEVICE IS LICENSED.

17 AND THIS IS WHY THIS IS FULLY IN LINE WITH THE POLICY  
18 OBJECTIVES OF ETSI.

19 Q. HAS THAT BEEN NOKIA'S UNDERSTANDING SINCE YOU'VE BEEN  
20 EMPLOYED BY NOKIA?

21 A. YES.

22 Q. AND WAS IT THE UNDERSTANDING OF SIEMENS WHEN YOU WERE  
23 EMPLOYED BY SIEMENS?

24 A. YES.

25 Q. AND IN THE ETSI IPR SPECIAL COMMITTEE, HAS ANYONE OBJECTED

1 THAT DEVICE LEVEL LICENSING IS CONTRARY TO 6.1?

2 A. THERE WAS NO SINGLE CONTRIBUTION COMING INTO THE ETSI IPR  
3 COMMITTEE ASKING, ARGUING THAT THIS WOULD BE INCONSISTENT.

4 Q. NOW, HAVE PROPOSALS BEEN MADE TO ETSI'S IPR SPECIAL  
5 COMMITTEE TO MODIFY CLAUSE 6.1 TO REQUIRE COMPONENT LEVEL  
6 LICENSING?

7 A. NO.

8 Q. AND HAS ANYONE STATED IN THE SPECIAL COMMITTEE THAT BY  
9 LICENSING AT THE DEVICE LEVEL, THAT A FRAND COMMITMENT IS  
10 VIOLATED?

11 A. NO.

12 Q. NOW, CLAUSE 6.1 ALSO STATES THAT THE FRAND UNDERTAKING,  
13 QUOTE, "MAY BE SUBJECT TO THE CONDITION THAT THOSE WHO SEEK  
14 LICENSES AGREE TO RECIPROCATE."

15 DO YOU SEE THAT?

16 A. YES.

17 Q. WHAT DOES THAT MEAN?

18 A. THIS MEANS WHEN YOU ARE LICENSING YOUR PATENTS, YOU CAN  
19 REQUIRE THE LICENSOR IN THAT CASE TO ALSO LICENSE THEIR PATENTS  
20 BACK TO YOU.

21 AND THIS IS TYPICALLY IMPLEMENTED BY CROSS-LICENSING.

22 Q. NOW, LET ME ASK YOU, MR. WEILER, HAVE PROPOSALS BEEN MADE  
23 IN THE IPR SPECIAL COMMITTEE TO CHANGE CLAUSE 6 .1 SO FRAND IS  
24 MORE SPECIFICALLY DEFINED?

25 A. YES.

1 Q. WHEN WERE SUCH PROPOSALS MADE AND WHAT WERE THE  
2 CIRCUMSTANCES?

3 A. IN THE END OF 2011, ETSI RECEIVED TWO LETTERS FROM APPLE  
4 AND BROADCOM REQUESTING ETSI TO DISCUSS A CHANGE OF ITS IPR  
5 POLICY TO BETTER DEFINE FRAND.

6 Q. AND AS CHAIR OF THIS COMMITTEE, IT IS MY OBLIGATION TO SEE  
7 WHETHER I CALL FOR MEETING OF THIS COMMITTEE AND DISCUSS SUCH  
8 TOPICS, AND BASED ON MY KNOWLEDGE OF THE INDUSTRY DISCUSSIONS,  
9 I AGREED TO CALL THE COMMITTEE AND -- WITH THE QUESTION, SHOULD  
10 ETSI DISCUSS POTENTIAL CLARIFICATIONS, WHAT FRAND MEANS?

11 AND SO WE HAVE DISCUSSED THIS IN ETSI DURING THE COURSE OF  
12 THREE YEARS.

13 Q. NOW, WAS ONE OF THE PROPOSALS THAT WAS MADE TO DEFINE A  
14 COMMON ROYALTY BASE FOR CALCULATING A FRAND ROYALTY?

15 A. YES.

16 Q. WHAT WAS THAT PROPOSAL?

17 A. THE PROPOSAL WHICH WAS SUBMITTED BY VARIOUS COMPANIES,  
18 INCLUDING APPLE, BROADCOM, CISCO, INTEL AND MAYBE OTHERS, THIS  
19 PROPOSAL -- SO THIS CONTRIBUTION PROPOSED TO DEFINE THE ROYALTY  
20 BASE BASED ON THE SMALLEST SALEABLE PATENT PRACTICING UNIT, OR  
21 SSPPU.

22 Q. AND WHAT WAS THE OUTCOME OF THAT PROPOSAL?

23 A. THIS PROPOSAL HAS BEEN EXTENSIVELY DISCUSSED IN THAT  
24 COMMITTEE, AND THERE WAS NO CONSENSUS TO CHANGE THE ETSI IPR  
25 POLICY TO INCLUDE ANY SUCH PROVISION.



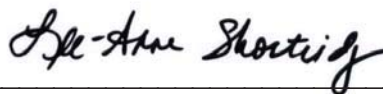
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IRENE RODRIGUEZ, CSR, CRR  
CERTIFICATE NUMBER 8076



LEE-ANNE SHORTRIDGE, CSR, CRR  
CERTIFICATE NUMBER 9595

DATED: JANUARY 22, 2019

A357

UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA  
SAN JOSE DIVISION

FEDERAL TRADE COMMISSION, ) C-17-00220 LHK  
)  
PLAINTIFF, ) SAN JOSE, CALIFORNIA  
)  
VS. ) JANUARY 18, 2019  
)  
QUALCOMM INCORPORATED, A ) VOLUME 7  
DELAWARE CORPORATION, )  
) PAGES 1343-1584  
DEFENDANT. ) **SEALED PAGES** 1473-1477,  
1570-1573

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TRANSCRIPT OF PROCEEDINGS  
BEFORE THE HONORABLE LUCY H. KOH  
UNITED STATES DISTRICT JUDGE

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PROCEEDINGS RECORDED BY MECHANICAL STENOGRAPHY  
TRANSCRIPT PRODUCED WITH COMPUTER

A358

1 Q. SO IF THERE'S AN OEM WHO HAD SAID THAT THE OEM FELT  
2 INCENTIVIZED, OR EVEN COMPELLED, TO PURCHASE QUALCOMM CHIPS AS  
3 OPPOSED TO A COMPETITOR'S CHIPS, IN ORDER TO RECOUP THE UPFRONT  
4 FEE, WOULD THAT MAKE SENSE TO YOU?

5 A. NO, THAT DOESN'T MAKE SENSE TO ME. THAT'S NOT THE WAY THE  
6 UPFRONT FEES IN THE AGREEMENTS WORK.

7 Q. YOU ALSO MENTIONED, AT THE END OF YOUR ANSWER, SOME CROSS  
8 GRANTS THAT QUALCOMM GETS AT TIMES?

9 A. YES.

10 Q. WHY DOES QUALCOMM REQUEST CROSS GRANTS FROM LICENSEES?

11 A. QUALCOMM TYPICALLY REQUESTS CROSS GRANTS FROM LICENSEES  
12 WHEN IT IS GRANTING LICENSING TO ALL OF QUALCOMM'S PATENTS,  
13 WHAT I'LL CALL THE PORTFOLIO LICENSE.

14 IN THAT SITUATION, IT'S A MATTER, YOU KNOW, OF COMMON  
15 PRACTICE AND, FRANKLY, PRUDENCE FOR A COMPANY THAT IS GRANTING  
16 ALL OF ITS RIGHTS TO SEEK SOME SET OF CROSS RIGHTS FROM THE  
17 LICENSEE IN ORDER TO NOT LEAVE ITSELF EXPOSED TO THE LICENSEE'S  
18 PATENTS AT A TIME WHEN IT HAS GRANTED RIGHTS TO ALL OF ITS  
19 PATENTS.

20 Q. IS THIS UNIQUE TO QUALCOMM?

21 A. NO. THAT'S -- THAT'S VERY COMMON IN PATENT LICENSING.  
22 THAT'S WHAT PEOPLE DO.

23 Q. SO OUTSIDE OF CIRCUMSTANCES WHERE YOU'RE GRANTING A, A  
24 LICENSE TO YOUR PATENTS, DOES QUALCOMM SEEK INBOUND LICENSES OF  
25 CELLULAR SEPS TO COVER ITS OWN MODEM CHIPS?

1 A. NO.

2 Q. AND WHY NOT?

3 A. WELL, THEY -- THE PRACTICE IN THE INDUSTRY, HOW THE  
4 INDUSTRY HAS GROWN UP IS THAT CELLULAR SEPS ARE LICENSED AT THE  
5 DEVICE LEVEL.

6 SO IT IS THE PRACTICE FOR PEOPLE WHO ARE GOING OUT AND  
7 LICENSING SEPS TO LICENSE THEM AT THE DEVICE LEVEL AND NOT AT  
8 THE CHIP LEVEL.

9 SO IT'S -- IT'S NOT -- IT'S NOT NEEDED AS A COMMERCIAL  
10 MATTER.

11 Q. AND THE LAST THING YOU MENTIONED WAS RUNNING ROYALTIES AS  
12 AN ELEMENT OF CONSIDERATION. ARE THE RUNNING ROYALTIES ALWAYS  
13 THE SAME IN LICENSE AGREEMENTS?

14 A. NO. THEY VARY.

15 Q. ARE THERE TYPICAL RUNNING ROYALTY RATES FOR HANDSETS?

16 A. FOR HANDSETS, THERE ARE TYPICAL ROYALTY RATES THAT -- THE  
17 TYPICAL RATES HAVE CHANGED OVER TIME, BUT THERE ARE TYPICAL  
18 RATES.

19 Q. AND SO WHAT ARE THOSE TYPICAL RATES AND WHAT HAVE THEY  
20 BEEN OVER TIME?

21 A. OKAY. SO THE ORIGINAL, ORIGINAL LICENSES WERE AT  
22 5 PERCENT, THEY WERE CDMA ONLY LICENSES, THAT'S ALL THERE WAS  
23 AT THE TIME. AND IT WAS 5 PERCENT ON A FULL PORTFOLIO LEVEL  
24 AND THOSE WERE WHAT THE LICENSES WERE.

25 AND THAT 5 PERCENT AT THE PORTFOLIO LEVEL HAS STAYED

1       CONSTANT THROUGHOUT UNTIL RELATIVELY RECENTLY FOR CERTAIN  
2       PRODUCTS THAT I'LL GET INTO.

3               FOR CDMA PRODUCTS, IT HAS STAYED CONSTANT THROUGHOUT UNTIL  
4       VERY RECENTLY.

5       Q.     AND JUST TO BE CLEAR, WHEN YOU SAY "VERY RECENTLY," ARE  
6       YOU REFERRING TO SOMETHING BEFORE MARCH OF 2018?

7       A.     YES.   I'M REFERRING -- YES.

8       Q.     OKAY.   THANK YOU.

9       A.     YES, I AM.

10            SO BEFORE MARCH -- YES, BEFORE MARCH 2018, YES.

11            AND SO IN -- WHEN LTE CAME ALONG, WE ANNOUNCED RATES FOR  
12       ESSENTIAL ONLY AT 3 AND A QUARTER FOR THE FIRST RELEASE; AND WE  
13       OFFERED FULL PORTFOLIO FOR LTE AT 4 PERCENT, AND THAT WAS THE  
14       TYPICAL RATE FOR A WHILE.

15            AS LTE ADDED FUNCTIONALITY, THE ESSENTIAL ONLY RATE BECAME  
16       3 AND A HALF.

17            AS THE PROGRAM CONTINUED TO EVOLVE, THERE WAS A DECISION  
18       AND RECTIFICATION PLAN IN CHINA BY THE NATIONAL DEVELOPMENT AND  
19       THE FORM COMMISSION, THE NDRC, THAT PROVIDED FOR CERTAIN  
20       ROYALTY TERMS FOR ESSENTIALS ONLY AGREEMENTS, AND THOSE ROYALTY  
21       TERMS WERE 3.25 PERCENT, NORMALLY EXPRESSED AT 5 PERCENT TIMES  
22       65 PERCENT OF THE PRICE FOR MULTIMODE PRODUCTS, 3G/4G PRODUCTS;  
23       AND 2.275 PERCENT, NORMALLY EXPRESSED AT 3 AND A HALF PERCENT,  
24       TIMES 65 PERCENT OF THE NET SELLING PRICE FOR SINGLE MODE LTE  
25       PRODUCTS.

1 AND SINCE THEN, THAT SET OF TERMS HAVE BECOME OUR STANDARD  
2 TERMS FOR ESSENTIALS ONLY RATES WORLDWIDE FOR MULTIMODE  
3 ESSENTIALS ONLY LICENSES AND SINGLE MODE ESSENTIALS ONLY  
4 LICENSES FOR ANY SET OF STANDARDS, INCLUDING 5G.

5 Q. SO LET ME UNPACK ONE THING THAT I THINK PROBABLY IS CLEAR  
6 FROM YOUR ANSWER, BUT DO LICENSEES PAY DIFFERENT RATES IF THEY  
7 TAKE AN ESSENTIALS ONLY LICENSE VERSUS IF THEY TAKE A LICENSE  
8 TO QUALCOMM'S FULL PORTFOLIO?

9 A. YES, THEY DO. FOR ESSENTIALS ONLY, IT IS FOR A MULTIMODE  
10 DEVICE, WHICH IS A DEVICE THAT DOES MORE THAN ONE STANDARD,  
11 3.25 PERCENT.

12 AND FOR THAT SAME DEVICE FOR A FULL PORTFOLIO LICENSE, IT  
13 WOULD BE 5 PERCENT.

14 AND FOR SINGLE MODE, IT'S A LITTLE BIT LESS.

15 Q. ALL RIGHT. AND ASIDE FROM THESE PERCENTAGE AMOUNTS, ARE  
16 THERE ANY NUMERICAL OR JUST HARD DOLLAR CAPS ON THE ROYALTIES  
17 THAT LICENSEES OWE UNDER TYPICAL AGREEMENTS?

18 A. YES. FOR HANDSETS, THERE HAVE BEEN CAPS SINCE LONG BEFORE  
19 I ARRIVED AT QUALCOMM THEY'RE A LONG STANDING FEATURE OF THE  
20 LICENSING PROGRAM. HISTORICALLY THE CAP ON A HANDSET FOR  
21 ROYALTIES HAD BEEN \$25.

22 THE CAPS TODAY, OR AS OF MARCH 2018, ARE \$20 FOR A FULL  
23 PORTFOLIO MULTIMODE, AND \$13 FOR AN ESSENTIALS ONLY MULTIMODE,  
24 AND LESS FOR SINGLE MODE.

25 Q. ALL RIGHT. SO TAKE A HYPOTHETICAL PHONE WITH \$1,000 NET

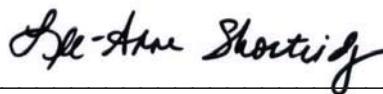
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DATED: JANUARY 18, 2019

A363

UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA  
SAN JOSE DIVISION

FEDERAL TRADE COMMISSION, ) C-17-00220 LHK  
)  
PLAINTIFF, ) SAN JOSE, CALIFORNIA  
)  
VS. ) JANUARY 25, 2019  
)  
QUALCOMM INCORPORATED, A ) VOLUME 9  
9 DELAWARE CORPORATION, )  
) PAGES 1829-2026  
10 DEFENDANT. ) SEALED PAGES 2021-2021  
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TRANSCRIPT PRODUCED WITH COMPUTER

A364



1 AND THEN THERE WERE ADDITIONAL RATES THAT WERE SIGNED, AND AS  
2 WE LOOKED AT THE GRAPH BEFORE, YOU COULD REALLY SEE THAT WE SEE  
3 CONSISTENTLY THE 5 PERCENT APPEARING OVER AND OVER AGAIN. WE  
4 CAN SEE THIS HERE LOOKING FROM 99 ONWARDS. WE CAN SEE KIND OF  
5 THE REVALIDATION IN THIS CASE FOR WCDMA, AND THE PREVIOUS GRAPH  
6 FOR CDMA.

7 Q. AND DOES THE FACT THAT QUALCOMM HAS MOST FAVORED ROYALTY  
8 RATE PROVISIONS IN SOME OF ITS AGREEMENTS AFFECT YOUR  
9 CONCLUSION IN ANY WAY?

10 A. NO, IT DOESN'T. THE MOST FAVORED ROYALTY RATES  
11 PROVISIONS, IF THEY INDEED HAVE BITE, WOULD EXPLAIN CONSISTENCY  
12 OF THE RATE, BUT THEY WON'T EXPLAIN THE LEVEL.

13 AND IN PARTICULAR, WHAT THEY WOULD IMPLY IS IF YOU ARE  
14 GOING TO LINE UP ALL THE RATES, SO I'M ASSUMING THAT THEY HAVE  
15 BITE, YOU WOULD LINE UP BASICALLY AT THE, THE LOWEST RATE THAT,  
16 YOU KNOW, ANY LEVERAGE THAT YOU CAN GET. IT WOULD BE WHAT I  
17 CALL A RATCHETING DOWN EFFECT, NOT RATCHETING UP. IT WOULD NOT  
18 EXPLAIN WHY YOU WOULD RATCHET UP EVERYONE TO A SUPRA-FRAND RATE  
19 AND EXPLAIN WHY YOU WOULD GO DOWN TO THE LOWEST, SOME SAY THE  
20 LOWEST COMMON DENOMINATOR IN TERMS OF YOUR BUILT TO LEVERAGE.

21 SO YOU COULD NOT GET ANY MORE THAN YOUR LOWEST LEVERAGE  
22 ACCORDING TO THE THEORY.

23 Q. AND DOES QUALCOMM'S NONDISCRIMINATION OBLIGATIONS UNDER  
24 ITS FRAND COMMITMENTS AFFECT YOUR CONCLUSION?

25 A. AGAIN, TO THE EXTENT THAT THEY BITE, AND NOT TAKING A

1 STAND ON THE SIMILARLY SITUATED PART OF THAT CONDITION, THEY  
2 WOULD EXPLAIN CONSISTENTLY, BUT NOT THE LEVELS. SO THE SAME  
3 ANSWER.

4 Q. DID YOU PERFORM ANY OTHER TESTS?

5 A. YES, I DID.

6 Q. OKAY. WHAT WAS THE NEXT ONE THAT YOU DID?

7 A. SO THE NEXT THING THAT I DID WAS I ACTUALLY COMPARED THE  
8 RATES BETWEEN THE CDMA AGREEMENTS AND THE WCDMA ONLY  
9 AGREEMENTS.

10 Q.

11 +WHY DID YOU DO THAT?

12 A. BECAUSE HERE AGAIN IT GIVES US A WAY TO TEST THE THEORY,  
13 OR THE PREDICTIONS OF THE THEORY BY COMPARING TWO DIFFERENT  
14 TECHNOLOGIES WHERE THERE'S DIFFERENT ALLEGATIONS OF MARKET  
15 POWER.

16 Q. AND CAN YOU EXPLAIN WHAT, WHAT THE CONCLUSION WAS FROM  
17 YOUR TEST?

18 A. SO THE CONCLUSION BASICALLY IS THE SAME AS THE PREVIOUS  
19 TWO TESTS. THE THEORY WOULD PREDICT THAT WE SHOULD SEE HIGH  
20 RATES IN CDMA BECAUSE THERE'S AN ALLEGATION OF MARKET POWER,  
21 ESPECIALLY IN A PARTICULAR TIME PERIOD WHERE THERE IS NO  
22 ALLEGATION FOR THAT IN WCDMA, IN THE WCDMA ONLY AGREEMENTS.

23 SO THE THEORY PREDICTS WE SHOULD SEE HIGHER RATES IN THE  
24 CDMA, AND THAT'S NOT WHAT WE SEE.

25 Q. AND DID YOU PUT A SLIDE TOGETHER THAT SHOWS THE RESULTS OF

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1 YOUR TESTS?

2 A. YES, I DID.

3 Q. CAN WE TAKE A LOOK AT THAT, PLEASE. IT'S SLIDE 7.

4 A. SO WHAT I DID HERE IS REALLY A COMBINATION OF THE PREVIOUS  
5 TWO SLIDES. THE RED DOTS HERE ARE THE CDMA AGREEMENTS THAT WE  
6 PREVIOUSLY SAW, AND THE BLUE DOTS ARE THE WCDMA ONLY  
7 AGREEMENTS. AND JUST PUTTING THEM NOW IN ONE TIMELINE.

8 AND VISUALLY, AGAIN, WE CAN SEE WHAT I ALLUDED TO BEFORE,  
9 IS THE FACT THAT WE DON'T SEE A JUMP IN THE RATES IN WCDMA,  
10 WHETHER IT'S DURING THE 2006 TO 2011 PERIOD, OR WHETHER IT'S  
11 ANY OTHER -- DURING ANY OTHER PERIOD.

12 Q. AND DID YOU TEST THIS STATISTICALLY?

13 A. I ALSO CONFIRMED THAT RESULT WITH A STATISTICAL TEST.

14 Q. DID YOU CONSIDER THE POSSIBILITY THAT QUALCOMM COULD HAVE  
15 USED MARKET POWER IN CDMA TO OBTAIN HIGHER RATES IN WCDMA?

16 A. I CONSIDERED -- I CONSIDERED THAT POSSIBILITY.

17 AS A MATTER OF POLICY, I THINK WE HAVE PRETTY -- A LOT OF  
18 TESTIMONY ON THE RECORD SAYING THAT THE POLICY IS STANDARD  
19 SPECIFIC. SO THE THEORY BEHIND THAT DOESN'T MATCH WHAT THE  
20 ACTUAL POLICY IS.

21 BUT FOR THE SAKE OF THIS TEST, I ACTUALLY PUT THAT ASIDE  
22 AND ASKED MYSELF, WOULD THAT ADD UP AS A POSSIBILITY, AS A  
23 THREAT, EVEN THOUGH THAT'S NOT THE ACTUAL POLICY?

24 Q. WHAT DID YOU CONCLUDE?

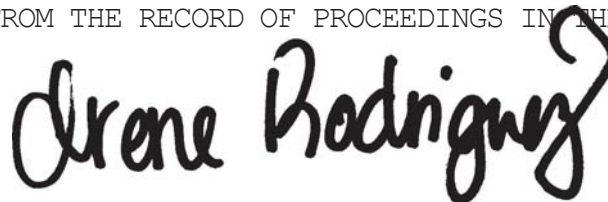
25 A. WHAT I CONCLUDED WAS THAT MATH DOESN'T JUST -- DOESN'T ADD

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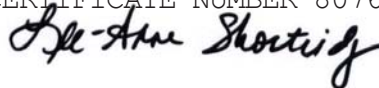
CERTIFICATE OF REPORTERS

WE, THE UNDERSIGNED OFFICIAL COURT REPORTERS OF THE  
UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF  
CALIFORNIA, 280 SOUTH FIRST STREET, SAN JOSE, CALIFORNIA, DO  
HEREBY CERTIFY:

THAT THE FOREGOING TRANSCRIPT, CERTIFICATE INCLUSIVE, IS  
A CORRECT TRANSCRIPT FROM THE RECORD OF PROCEEDINGS IN THE  
ABOVE-ENTITLED MATTER.



IRENE RODRIGUEZ, CSR, CRR  
CERTIFICATE NUMBER 8076



LEE-ANNE SHORTRIDGE, CSR, CRR  
CERTIFICATE NUMBER 9595

DATED: JANUARY 25, 2019

A368

UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA  
SAN JOSE DIVISION

FEDERAL TRADE COMMISSION, ) C-17-00220 LHK  
)  
PLAINTIFF, ) SAN JOSE, CALIFORNIA  
)  
VS. ) JANUARY 15, 2019  
)  
QUALCOMM INCORPORATED, A ) VOLUME 6  
DELAWARE CORPORATION, )  
) PAGES 1112-1342  
DEFENDANT. )  
\_\_\_\_\_ )

TRANSCRIPT OF PROCEEDINGS  
BEFORE THE HONORABLE LUCY H. KOH  
UNITED STATES DISTRICT JUDGE

A P P E A R A N C E S:

FOR THE PLAINTIFF: FEDERAL TRADE COMMISSION  
BY: JENNIFER MILICI  
DANIEL J. MATHESON  
WESLEY G. CARSON  
KENT COX  
NATHANIEL M. HOPKIN  
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APPEARANCES CONTINUED ON NEXT PAGE

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CERTIFICATE NUMBER 9595  
IRENE RODRIGUEZ, CSR, CRR, RMR  
CERTIFICATE NUMBER 8074

PROCEEDINGS RECORDED BY MECHANICAL STENOGRAPHY  
TRANSCRIPT PRODUCED WITH COMPUTER

A369

1 SO WE JUST WENT THROUGH THE SURCHARGE IS A BURDEN ON  
2 TRANSACTIONS BETWEEN QUALCOMM -- EXCUSE ME -- BETWEEN THE OEM  
3 AND QUALCOMM'S RIVALS, AND IT REDUCES THE GAINS FROM TRADE BY  
4 THE AMOUNT OF THE SURCHARGE.

5 LET'S THINK NOW ABOUT THE TRANSACTIONS BETWEEN QUALCOMM  
6 AND AN OEM, OKAY? BECAUSE PROFESSOR NEVO IS SAYING THAT THE  
7 TAX IS CHIP-AGNOSTIC, NON-DISCRIMINATORY.

8 WELL, THE ROYALTY SURCHARGE DOES NOT REDUCE THE GAINS FROM  
9 TRADE BETWEEN QUALCOMM AND THE OEM IN THE SAME MANNER BECAUSE  
10 THEY'RE NOT PAYING -- BECAUSE QUALCOMM IS THE RECIPIENT OF THE  
11 ROYALTIES, OKAY? IT'S A FUNDAMENTAL DIFFERENCE.

12 WHEN AN OEM BUYS A CHIP FROM A RIVAL, THE TWO OF THEM  
13 TOGETHER HAVE TO WRITE A CHECK TO QUALCOMM.

14 WHEN AN OEM BUYS A CHIP FROM QUALCOMM, THERE'S NO MONEY  
15 GOING OUT TO THIRD PARTIES.

16 IF YOU WANT TO THINK ABOUT THIS AS QUALCOMM'S CHIP  
17 DIVISION IS BEARING THE COST OF THOSE ROYALTIES LIKE ITS RIVALS  
18 ARE, THAT'S OKAY. BUT THEN THERE'S AN EQUAL OFFSETTING BENEFIT  
19 OR REVENUE TO QUALCOMM'S LICENSING DIVISION BECAUSE THEY'RE THE  
20 RECIPIENT OF THE ROYALTY.

21 SO THAT'S JUST FUNDAMENTALLY DIFFERENT BETWEEN THE TWO  
22 TRANSACTIONS, AND THAT'S ACTUALLY CLEAREST WHEN WE THINK ABOUT  
23 TRANSACTIONS THAT EXPAND THE MARKET FOR MODEM CHIPS.

24 SO IT'S JUST NOT CORRECT TO SAY THAT, THAT A ROYALTY  
25 SURCHARGE IS -- AFFECTS THESE TWO TYPES OF TRANSACTIONS

1 EQUALLY. IT'S A MISTAKE.

2 Q. LET'S TURN TO THE NEXT DEMONSTRATIVE. SO FAR WE'VE BEEN  
3 FOCUSSED ON HOW THE ROYALTY SURCHARGE AFFECTS GAINS FROM  
4 TRADE.

5 WHAT ARE THE COMPETITIVE EFFECTS OF THE ROYALTY SURCHARGE  
6 ON THE MARKET AS A WHOLE, INCLUDING ON QUALCOMM?

7 A. OKAY. SO THIS IS REALLY THE BOTTOM LINE IN TERMS OF THE  
8 COMPETITIVE EFFECTS, THE CONCERNS FOR ANTITRUST OF THIS SET OF  
9 PRACTICES.

10 I THINK I'VE ALREADY ESTABLISHED OR EXPLAINED THAT THE  
11 ROYALTY SURCHARGE RAISES THE COST OF QUALCOMM'S RIVALS, WEAKENS  
12 THEM. THAT'S, I GUESS, IMMEDIATE TO AN ANTITRUST ECONOMIST.  
13 IF THESE RIVALS HAVE HIGHER COSTS, THEY'RE GOING TO BE LESS  
14 EFFECTIVE COMPETITORS, MEANING THEY'RE GOING TO HAVE TO PASS ON  
15 THOSE COSTS TO SOME DEGREE TO THEIR -- IN THEIR PRICES, AND  
16 THAT MAKES THEM LESS EFFECTIVE COMPETITORS.

17 SO RIVALS ARE WEAKENED. THIS INEVITABLY FORTIFIES  
18 QUALCOMM'S MONOPOLY POWER.

19 AND THAT HAS ADVERSE EFFECTS ON COMPETITION IN THE SHORT  
20 RUN AND THE LONG RUN. THE SHORT RUN, WE'RE GOING TO END UP  
21 WITH HIGHER ALL-IN PRICES FOR THE CHIPS, BASICALLY HIGHER COSTS  
22 FOR THE OEM'S.

23 AND IN THE LONG RUN -- WE'RE STILL AT THE PREVIOUS RUN --  
24 THE LONG RUN, I HAVEN'T TALKED ABOUT THAT, BUT IT'S INEVITABLE  
25 THAT SINCE THE RIVALS ARE HAVING THEIR MARGINS SQUEEZED ON THE

1 CHIPS THEY'RE SELLING, THEIR MARGINS ARE BEING REDUCED AND  
2 THEY'RE SELLING FEWER CHIPS, THAT THE OPERATING PROFITS THEY  
3 CAN EARN FROM BEING IN THIS BUSINESS ARE REDUCED AND THAT IS  
4 GOING TO INEVITABLY REDUCE THEIR INCENTIVES TO MAKE R&D  
5 INVESTMENTS.

6 NOW, THERE'S A LOT OF OTHER FACTORS THAT AFFECT R&D  
7 INVESTMENT, BUT THERE IS A MINUS, THIS IS KIND OF A HEADWIND,  
8 IF YOU WILL, THAT THEY'LL BE FACING.

9 SO THAT'S THE SHORT RUN AND THE LONG RUN ADVERSE EFFECTS  
10 ON COMPETITION.

11 AND THEN I WANT TO EMPHASIZE THAT THE HIGHER PRICES ARE  
12 NOT JUST THE PRICES FOR THE RIVAL MODEM CHIPS, BUT QUALCOMM'S  
13 PRICES ARE ALSO GOING TO GO UP, AND I HAVEN'T MADE THAT POINT  
14 YET, SO LET ME EXPLAIN WHY.

15 AND IT'S THE ALL-IN PRICES THAT MATTER, BECAUSE THAT'S  
16 WHAT AFFECTS THE OEM'S COSTS.

17 WHY WILL QUALCOMM'S ALL-IN PRICES GO UP? WELL, THERE'S  
18 TWO REASONS. FIRST, THEY'VE GOT RIVALS WHO ARE WEAKENED AND  
19 CHARGING HIGHER ALL-IN PRICES BECAUSE THEY'RE HAVING TO PAY THE  
20 SURCHARGE. SO AS A GENERAL RULE, WHEN YOUR COMPETITORS RAISE  
21 THEIR PRICE, IT TENDS TO GIVE A FIRM INCENTIVE TO RAISE HIS  
22 PRICE AS WELL IN OLIGOPOLIES, AND IN ADDITION TO THAT, QUALCOMM  
23 IS LESS KEEN TO COMPETE TO WIN BUSINESS FROM ITS COMPETITORS  
24 BECAUSE EVEN WHEN IT LOSES, IT GETS A ROYALTY SURCHARGE.

25 AND SO THAT'S ANOTHER REASON WHY QUALCOMM WILL NOT BE AS



1 AGGRESSIVE IN PRICING AND WILL TEND TO RAISE ITS ALL-IN PRICES  
2 DUE TO THE ROYALTY SURCHARGE.

3 SO FROM THE POINT OF VIEW OF COMPETITION AND THE COST  
4 HERS, THE OEM'S, I WOULD EXPECT THE PREDICTION HERE WOULD BE  
5 THAT THE EFFECT OF THIS IS TO CAUSE ALL-IN MODEM PRICES TO GO  
6 UP FOR THE QUALCOMM MODEMS AND THE RIVAL MODEMS.

7 AND THAT IN TURN IS GOING TO GET PASSED THROUGH TO  
8 CONSUMERS BECAUSE THIS IS ACROSS THE BOARD, THIS IS ALL THE  
9 OEM'S, AND SO WE'RE GOING TO HAVE PASS THROUGH SO THE FINAL  
10 CONSUMERS WILL BE HARMED AS WELL.

11 SO WHEN YOU PUT ALL THIS TOGETHER, WE GET REALLY THE FULL  
12 PANOPLY OF ANTICOMPETITIVE CONCERNS THAT ONE HAS IN  
13 MONOPOLIZATION CASES, WEAKENED RIVAL, FORTIFIED MONOPOLY POWER,  
14 TENDENCY TO DISCOURAGE RIVALS FROM INVESTING, EITHER PUSHING  
15 THEM TO EXIT OR DISCOURAGE ENTRY, HIGHER PRICES FOR CONSUMERS,  
16 FOR DIRECT CUSTOMERS, AND HARM PASSED DOWNSTREAM TO FINAL  
17 CONSUMERS. THOSE ARE THE EFFECTS OF THESE THREE POLICIES  
18 WORKING TOGETHER.

19 Q. SO YOU'VE BEEN ANALYZING QUALCOMM'S USE OF MODEM CHIP  
20 LEVERAGE TO OBTAIN A ROYALTY SURCHARGE ON TRANSACTIONS BETWEEN  
21 RIVALS AND OEM'S.

22 IS IT MATERIAL TO YOUR ANALYSIS THAT THE SURCHARGE TAKES  
23 THE FORM OF A ROYALTY AS OPPOSED TO BEARING ANOTHER LABEL?

24 A. NO, IT DOES NOT MATTER. I THINK ONE WAY TO SEE THAT MOST  
25 CLEARLY IS TO THINK OF A HYPOTHETICAL WHERE A MONOPOLIST TELLS

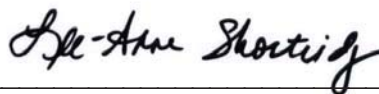
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CERTIFICATE NUMBER 8076



LEE-ANNE SHORTRIDGE, CSR, CRR  
CERTIFICATE NUMBER 9595

DATED: JANUARY 15, 2019

A374

UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA  
SAN JOSE DIVISION

FEDERAL TRADE COMMISSION, ) C-17-00220 LHK  
)  
PLAINTIFF, ) SAN JOSE, CALIFORNIA  
)  
VS. ) JANUARY 18, 2019  
)  
QUALCOMM INCORPORATED, A ) VOLUME 7  
DELAWARE CORPORATION, )  
) PAGES 1343-1584  
DEFENDANT. ) **SEALED PAGES** 1473-1477,  
1570-1573

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TRANSCRIPT OF PROCEEDINGS  
BEFORE THE HONORABLE LUCY H. KOH  
UNITED STATES DISTRICT JUDGE

A P P E A R A N C E S:

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BY: JENNIFER MILICI  
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WESLEY G. CARSON  
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TRANSCRIPT PRODUCED WITH COMPUTER

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1 Q. SO I'M GOING TO TURN NOW TO SOME OF THE PRACTICES THAT THE  
2 FTC HAS CHALLENGED IN THIS CASE, AND I'LL START WITH SOMETHING  
3 THAT THE FTC CALLS "NO LICENSE, NO CHIPS."

4 DO YOU KNOW WHAT POLICY OR PRACTICE THE FTC IS REFERRING  
5 TO WHEN THEY USE THAT PHRASE?

6 A. YES.

7 Q. CAN YOU DESCRIBE IN YOUR OWN WORDS WHAT PRACTICE THE FTC  
8 IS CALLING NO LICENSE, NO CHIPS?

9 A. THE COMPANY HAS A POLICY OF SELLING CHIPS, MODEM CHIPS,  
10 ONLY TO LICENSED OEM'S.

11 Q. WHEN YOU SAY, "ONLY TO LICENSED OEM'S," DOES A LICENSE --  
12 DOES AN OEM NEED TO BE LICENSED TO THE ENTIRETY OF QUALCOMM'S  
13 PORTFOLIO BEFORE QCT WILL SELL CHIPS TO THAT OEM?

14 A. NO.

15 Q. SO EXPLAIN WHAT PORTION OF THE PORTFOLIO IS AT ISSUE HERE.

16 A. OKAY. SO IT'S ESSENTIAL PATENTS, OKAY, AND IT'S ESSENTIAL  
17 PATENTS FOR A STANDARD THAT'S EMPLOYED IN THE PRODUCT, AND THE  
18 TEST IS, DOES THE LICENSE COVER THE PRODUCT INTO WHICH THE CHIP  
19 IS GOING TO GO?

20 Q. OKAY. SO LET'S SUPPOSE I'M AN OEM AND I REALLY, REALLY  
21 WANT TO BUY QUALCOMM'S CDMA CHIPS BECAUSE I THINK THEY ARE THE  
22 BEST AVAILABLE ALTERNATIVE.

23 DO I NEED ALSO TO HAVE A LICENSE TO WCDMA TECHNOLOGY FROM  
24 QUALCOMM?

25 A. NO. YOU'D NEED A CDMA LICENSE.

1 Q. OKAY. LET'S SUPPOSE THE CHIPS THAT I WANT TO BUY ARE  
2 MULTIMODE, THEY'RE CDMA, THEY ALSO CAN BE USED FOR WCDMA.

3 IN THAT CIRCUMSTANCE, DO I NEED TO HAVE A WCDMA LICENSE IN  
4 ORDER TO BUY THOSE CHIPS FROM QCT?

5 A. NO, BECAUSE THE -- THE PRODUCT YOU'D PUT THE CHIP INTO  
6 WOULD BE A PRODUCT THAT DOES CDMA, IT WOULD BE LICENSED UNDER  
7 THE CDMA AGREEMENT, AND SO IT WOULD BE A LICENSED PRODUCT. AS  
8 I SAID, THE TEST IS, IS IT A LICENSED PRODUCT?

9 Q. IS SO THERE EVER ANY CIRCUMSTANCE IN WHICH I WOULD NEED A  
10 WCDMA LICENSE IN ORDER TO PURCHASE CDMA CHIPS?

11 A. NO. IF YOU -- NO. A CDMA LICENSE IS WHAT YOU WOULD NEED.

12 Q. OKAY. WHY DOES QUALCOMM HAVE THIS PRACTICE?

13 A. SO WE HAVE THIS PRACTICE FOR TWO PRINCIPAL REASONS.  
14 FIRST, THERE'S A FAIR VALUE, AN ESTABLISHED FAIR VALUE FOR OUR  
15 I.P., AND WE DON'T WANT THE FACT THAT WE HAVE A LICENSING  
16 BUSINESS TO PREJUDICE US, TO HURT OUR ABILITY TO OBTAIN THE  
17 FAIR VALUE FOR OUR I.P.

18 Q. YOU SAID "WE DON'T WANT THE FACT THAT WE HAVE A LICENSING  
19 BUSINESS" --

20 A. EXCUSE ME. A CHIP BUSINESS. A CHIP BUSINESS, THE FACT  
21 THAT WE SELL CHIPS, WE DON'T WANT THE FACT THAT WE HAVE A CHIP  
22 BUSINESS TO PREJUDICE OUR ABILITY TO OBTAIN THE FAIR VALUE  
23 THAT'S BEEN ESTABLISHED FOR OUR I.P.

24 Q. HOW WOULD HAVING A CHIP BUSINESS, OR SELLING CHIPS,  
25 PREJUDICE QTL'S ABILITY TO GET FAIR VALUE FOR THE INTELLECTUAL

1 PROPERTY?

2 A. WELL, SO TO UNDERSTAND, TO UNDERSTAND THAT, YOU NEED TO GO  
3 BACK TO THE, KIND OF THE BEGINNINGS OF HOW THIS ALL STARTED,  
4 RIGHT?

5 SO THE COMPANY DOES SYSTEMS INNOVATION AND LICENSES THAT  
6 OUT; RIGHT? THAT'S HOW -- THAT'S THE FOUNDATION OF THE  
7 COMPANY. THE LICENSING BUSINESS STARTS FIRST.

8 SO BY THE TIME THE CHIP BUSINESS STARTS, THERE'S AN  
9 ESTABLISHED VALUE FOR THE I.P. THAT'S FAIRLY NEGOTIATED,  
10 THERE'S A BUNCH OF AGREEMENTS.

11 OKAY. THE CHIP BUSINESS COMES ALONG. WHEN THE CHIP  
12 BUSINESS COMES ALONG, THEY PRICE THEIR CHIPS USING, OR WITH  
13 JUST THE PRICE OF THE CHIP IN MIND, EXCLUDING THE VALUE OF THE  
14 I.P. BECAUSE THE VALUE OF THE I.P. IS ALREADY TAKEN CARE OF IN  
15 THE LICENSES. OKAY?

16 SO WITH THAT SET UP, THE IMPORTANT POINT IS THE CHIPS ARE  
17 SOLD FOR THE VALUE OF THE CHIPS, EXCLUDING THE VALUE OF THE  
18 I.P.

19 SO --

20 Q. AND WHY DOES THAT REQUIRE THIS PRACTICE WE'RE TALKING  
21 ABOUT?

22 A. OKAY. SO WE THINK OF TWO SITUATIONS, YOU KNOW, SELLING TO  
23 A LICENSEE OR SELLING TO A NON-LICENSEE.

24 IF YOU SELL TO A LICENSEE, THEN EVERYTHING IS FINE BECAUSE  
25 YOU GET THE VALUE OF THE CHIP WHEN YOU SELL THE CHIP AND YOU

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1 GET THE VALUE OF THE I.P., THE FAIR VALUE OF THE I.P. FROM THE  
2 LICENSE. OKAY?

3 IF YOU SELL TO A NON-LICENSEE, THEN YOU GET THE VALUE OF  
4 THE CHIP FOR THE CHIP, BUT THERE'S NO AGREEMENT ABOUT THE VALUE  
5 OF THE I.P., SO YOU NEED TO TALK WITH THEM ABOUT GETTING FAIR  
6 VALUE FOR THE I.P.

7 AND THE PROBLEM THAT ARISES IS THAT BY VIRTUE OF HAVING  
8 SOLD THEM THE CHIP, THEY NOW HAVE ARGUMENTS THAT ARISE UNDER  
9 PATENT LAW AND PRINCIPLES OF PATENT EXHAUSTION THAT THEY DON'T  
10 HAVE TO PAY YOU ANY MORE FOR THE FAIR VALUE OF THE I.P. BECAUSE  
11 YOU'VE SOLD THEM THE CHIP, EVEN THOUGH THEY HAVEN'T PAID  
12 ANYTHING FOR THAT YET.

13 Q. AND HOW DOES THE AVAILABILITY OF THESE ARGUMENTS RELATING  
14 TO PATENT EXHAUSTION HAVE THE POTENTIAL TO PREJUDICE THE  
15 LICENSING BUSINESS?

16 A. WELL, THE -- THOSE ARGUMENTS AND THE FACT -- THOSE ISSUES  
17 WILL AFFECT THE NEGOTIATIONS, WILL AFFECT POTENTIAL LEGAL  
18 CLAIMS WE CAN BRING IN CASE WE CAN'T REACH AGREEMENT, AND WILL  
19 AFFECT THE POTENTIAL REMEDIES WE GET, OR THE EFFECT OF THOSE  
20 REMEDIES IN CASE -- EVEN IF WE BRING A CASE AND WIN.

21 SO ALL OF THAT DRIVES DOWN THE ULTIMATE OUTCOME TO BELOW  
22 THE FAIR VALUE.

23 Q. AND HOW DOES THE PRACTICE THAT WE'RE TALKING ABOUT OF  
24 SELLING ONLY TO LICENSED OEM'S ADDRESS THE PROBLEM YOU'VE  
25 IDENTIFIED?

1 A. WELL, AS I SAID, IF YOU GET -- IF YOU SELL TO SOMEONE THAT  
2 HAS A LICENSE, THEN THE LICENSE PROVIDES THE CONTRACTUAL  
3 AGREEMENT PROVIDING FOR THE FAIR VALUE. AND SO THESE ISSUES  
4 SIMPLY DON'T ARISE BECAUSE THERE IS ALREADY AN AGREEMENT FOR A  
5 FAIR VALUE.

6 Q. SO YOU REFERRED EARLIER TO SOME HISTORICAL REASONS FOR WHY  
7 QUALCOMM DOESN'T PRICE THE I.P. INTO THE CHIP.

8 ARE THERE OTHER, OTHER BENEFITS THAT QUALCOMM BELIEVES  
9 ARISE FROM THIS SEPARATE PRICING STRUCTURE?

10 A. WELL, I THINK I -- I THINK I WAS TALKING EARLIER ABOUT WHY  
11 WE HAVE THE POLICY OF SELLING ONLY TO LICENSED OEM'S.

12 IF WE -- IF YOU -- IF YOU'RE ASKING ABOUT WHY WE DON'T  
13 JUST PRICE THE I.P. IN THE CHIPS? IS THAT WHAT YOU'RE ASKING?

14 Q. WELL, IS THERE A REASON FOR THAT?

15 A. WELL, YES, THERE'S THE MATTER OF HISTORICAL PRACTICE, THE  
16 LICENSING BUSINESS WAS FIRST AND THE CHIP BUSINESS CAME SECOND,  
17 AND SO THAT'S HOW IT STARTED.

18 BUT, YOU KNOW, AS WE ARE NOW, PRICING -- TRYING TO PRICE  
19 THE I.P. PRICE INTO THE CHIP PRICE WOULD NOT WORK AS A METHOD  
20 TO GET YOU FAIR VALUE FOR THE I.P.

21 Q. WHY IS THAT?

22 A. WELL, BECAUSE -- WELL, YOU HAVE TO LOOK AT IT FROM THE  
23 POINT OF VIEW OF THE CHIP CUSTOMER AND THE CHOICES THE CHIP  
24 CUSTOMER IS FACING. OKAY?

25 SO LET'S SAY THERE'S A CHIP PRICE X AND THAT THERE'S FAIR



1 VALUE FOR QUALCOMM'S I.P. Y THAT'S ESTABLISHED IN THE MARKET.

2 OKAY?

3 SO WHAT WE'RE -- WHAT YOU'RE ASKING ABOUT IS A SITUATION  
4 WHERE QUALCOMM CHARGES FOR ITS CHIP X PLUS Y, AND FROM THE  
5 CUSTOMER'S POINT OF VIEW, THEIR CHOICE IS, OKAY, HERE'S  
6 QUALCOMM'S OFFERING, I HAVE TO PAY X PLUS Y.

7 WHEN THEY'RE CONSIDERING SOMEBODY ELSE'S CHIP, OKAY, THEY  
8 HAVE TO PAY X, THE PRICE OF THE CHIP, OKAY, AND IF THEY HAVE A  
9 LICENSE AGREEMENT, THEY HAVE TO PAY Y AND IT'S THE SAME AND  
10 EVERYTHING IS FINE.

11 BUT WHAT IF THEY DON'T HAVE A LICENSE AGREEMENT? SO IF  
12 THEY DON'T HAVE A LICENSE AGREEMENT, OKAY, THEN WE HAVE -- WE  
13 OBVIOUSLY HAVE TO TALK TO THEM ABOUT THAT AND MAYBE THEY'LL  
14 ENTER INTO A LICENSE AGREEMENT OR MAYBE THEY WON'T.

15 BUT THE IMMEDIATE CHOICE THEY HAVE IS NOT PAYING X PLUS Y,  
16 IT'S PAYING X NOW AND, AT ABSOLUTE WORST, Y LATER. AND MAYBE  
17 THEY'LL END UP PAYING LESS THAN Y.

18 Q. WHY IS Y LATER THE ABSOLUTE WORST CASE SCENARIO FOR AN  
19 UNLICENSED OEM IN THESE CIRCUMSTANCES?

20 A. BECAUSE, AS I SAID, THERE'S AN ESTABLISHED VALUE FOR, FOR  
21 QUALCOMM'S I.P., SO WE'LL JUST SAY THAT IS THE FRAND -- WE'LL  
22 CALL THAT THE FRAND RATE AND SAY Y IS THE FRAND RATE.

23 IN A DISPUTE THEN WITH THE -- WITH THIS UNLICENSED  
24 CUSTOMER, THEN WHEN WE GO TO COURT OR ARBITRATION TO RESOLVE  
25 THAT DISPUTE, WE'RE SEEKING A FRAND RATE. WE ARE SEEKING Y.

1 QUALCOMM IS ASKING FOR Y.

2 THE COURT OR ARBITRATOR IS NOT GOING TO GIVE US MORE THAN  
3 Y. THE COURT, IF WE WIN EVERYTHING, THEN THEY'RE GOING TO GIVE  
4 US Y.

5 AND SO THAT'S WHY Y IS THE WORST CASE SCENARIO.

6 Q. SO ARE THERE CONSEQUENCES THEN DOWN THE LINE FOR QUALCOMM  
7 FROM THE FACT THAT THE OEM HAS THIS CHOICE THAT YOU'VE  
8 DESCRIBED?

9 A. OH, YES, RIGHT. YES, FOR SURE, BECAUSE, LOOK, IF THEY'RE  
10 FACING A CHOICE WHERE THE QUALCOMM -- THE QUALCOMM OFFERING IS  
11 X PLUS Y, AND THE COMPETING OFFERING IS X PLUS Y LATER, OR  
12 MAYBE LESS THAN Y LATER, THEN ALL OTHER THINGS BEING EQUAL, THE  
13 OTHER OFFERING IS GOING TO BE MORE ATTRACTIVE.

14 SO QUALCOMM'S GOING TO HAVE TO ADJUST ITS PRICE TO PUT  
15 THINGS ON A LEVEL PLAYING FIELD, AND THAT ADJUSTMENT IN PRICE  
16 IS EXACTLY GETTING LESS THAN FAIR COMPENSATION.

17 Q. AND ARE THERE ADDITIONAL BENEFITS THAT QUALCOMM HAS  
18 IDENTIFIED FROM HAVING SEPARATE PRICING FOR I.P. AND FOR CHIPS?

19 A. WELL, HAVING SEPARATE PRICING FOR I.P. AND CHIPS HELPS  
20 AVOID PROBLEMS THAT WOULD ARISE IF YOU TRIED -- IF YOU COMBINE  
21 THEM, COMBINE THE PRICE OF THE CHIPS AND THE LICENSE.

22 Q. WHAT SORT OF PROBLEMS ARE YOU TALKING ABOUT?

23 A. SO STANDARD ESSENTIAL PATENTS ARE SUBJECT TO FRAND  
24 COMMITMENTS AND THERE ARE LOTS OF ISSUES THAT GET RAISED WHEN  
25 I.P. IS SUBJECT TO FRAND COMMITMENTS.

1 ONE ISSUE THAT GETS RAISED, THAT HAS BEEN RAISED IN MY  
2 EXPERIENCE, IS THE ISSUE OF FRAND MAY PROHIBIT YOU FROM  
3 CHARGING FOR THE I.P. A DEVICE THAT USES YOUR COMPONENT LESS  
4 THAN A DEVICE -- THE SAME DEVICE THAT USES A COMPETING  
5 COMPONENT. OKAY?

6 IN OTHER WORDS, YOU CAN'T CHARGE LESS FOR STUFF THAT USES  
7 YOUR CHIPS THAN YOU CHARGE FOR STUFF THAT USES SOMEBODY ELSE'S  
8 CHIPS, AT LEAST THAT'S HOW THE ARGUMENT GOES.

9 THERE'S ALSO ISSUES OF NON-DISCRIMINATION, WHICH GOES TO  
10 SAY YOU HAVE TO TREAT SIMILARLY SITUATED PEOPLE SIMILARLY WHEN  
11 YOU'RE PRICING I.P.

12 Q. SO WHAT'S THE RELEVANCE OF ALL THIS TO SEPARATE PRICING OF  
13 CHIPS AND LICENSING?

14 A. SO IF YOU HAVE SEPARATE PRICES FOR I.P. AND CHIPS, THEN  
15 YOU CAN TELL WHAT'S GOING ON, RIGHT? YOU CAN TELL WHAT THE  
16 I.P. PRICE IS, YOU CAN TELL WHAT THE I.P. PRICE IS YOU'RE  
17 CHARGING DIFFERENT PEOPLE, YOU CAN TELL WHAT THE I.P. PRICE IS  
18 THAT YOU'RE CHARGING FOR YOUR DEVICES COMPARED TO -- FOR  
19 DEVICES THAT USE YOUR CHIPS COMPARED TO DEVICES THAT USE OTHER  
20 CHIPS. SO YOU CAN TELL, IS THERE -- ARE THESE ISSUES ARISING  
21 OR ARE THEY NOT?

22 IF YOU COMBINE THE PRICES, THEN ANY CHANGE IN THE  
23 COMBINATION -- AND CHIP PRICES VARY FAR MORE THAN I.P.  
24 PRICES -- BUT ANY CHANGE THEN NOW BECOMES SUSPECT, NOW BECOMES  
25 SUBJECT TO THESE ARGUMENTS. IS THIS DISCRIMINATION? IS THIS

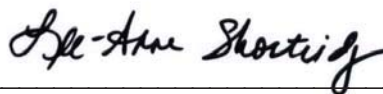
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IRENE RODRIGUEZ, CSR, CRR  
CERTIFICATE NUMBER 8076



LEE-ANNE SHORTRIDGE, CSR, CRR  
CERTIFICATE NUMBER 9595

DATED: JANUARY 18, 2019

A384

UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA  
SAN JOSE DIVISION

FEDERAL TRADE COMMISSION, ) C-17-00220 LHK  
)  
PLAINTIFF, ) SAN JOSE, CALIFORNIA  
)  
VS. ) JANUARY 18, 2019  
)  
QUALCOMM INCORPORATED, A ) VOLUME 7  
DELAWARE CORPORATION, )  
) PAGES 1343-1584  
DEFENDANT. ) **SEALED PAGES** 1473-1477,  
1570-1573

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TRANSCRIPT OF PROCEEDINGS  
BEFORE THE HONORABLE LUCY H. KOH  
UNITED STATES DISTRICT JUDGE

A P P E A R A N C E S:

FOR THE PLAINTIFF: FEDERAL TRADE COMMISSION  
BY: JENNIFER MILICI  
DANIEL J. MATHESON  
WESLEY G. CARSON  
KENT COX  
NATHANIEL M. HOPKIN  
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PROCEEDINGS RECORDED BY MECHANICAL STENOGRAPHY  
TRANSCRIPT PRODUCED WITH COMPUTER

A385

1 (IN OPEN COURT.)

2 MR. BORNSTEIN: WOULD YOU LIKE ME TO WAIT, YOUR  
3 HONOR?

4 THE COURT: LET'S WAIT. I DON'T WANT TO COUNT  
5 TOWARDS YOUR TIME WAITING FOR PEOPLE TO COME BACK IN.

6 MR. BORNSTEIN: WE APPRECIATE THAT.

7 (PAUSE IN PROCEEDINGS.)

8 THE COURT: ALL RIGHT. WELCOME BACK. PLEASE TAKE A  
9 SEAT. WE'RE BACK IN THE PUBLIC PORTION.

10 IT'S 1:33. GO AHEAD, PLEASE.

11 MR. BORNSTEIN: THANK YOU, YOUR HONOR.

12 Q. WE TALKED A LITTLE BIT BEFORE THE BREAK, MR. GONELL, ABOUT  
13 THE COMPANY'S PRACTICE OR PREFERENCE OF NOT GRANTING LICENSING  
14 AT THE CHIP LEVEL. DO YOU RECALL THAT?

15 A. I DO.

16 Q. HAS QUALCOMM ENTERED INTO NON-EXHAUSTIVE AGREEMENTS WITH  
17 MODEM CHIP SUPPLIERS?

18 A. WE HAVE.

19 Q. IN WHAT CIRCUMSTANCES HAS QUALCOMM DONE THAT?

20 A. WELL, WE'VE DONE THAT WITH SAMSUNG VERY RECENTLY IN  
21 JANUARY OF 2018. WE DID THAT WITH MEDIATEK IN ABOUT, I THINK,  
22 2008 AND THERE WERE ARRANGEMENTS THAT I TESTIFIED ABOUT  
23 PREVIOUSLY.

24  
25 Q. DID --

1           A.     THAT'S WHAT I CAN THINK OF AS I SIT HERE. I KNOW THAT  
2           THERE ARE MORE. THERE ARE HISTORIC ONES.

3           Q.     DID THESE NON-EXHAUSTIVE AGREEMENTS POSE THE SAME KIND OF  
4           PROBLEMS THAT YOU DESCRIBED EARLIER ABOUT MULTI LEVEL LICENSING  
5           THAT ARISE FROM THE EXHAUSTIVE CHIP LEVEL AGREEMENTS?

6           A.     NO.

7           Q.     WHY NOT?

8           A.     BECAUSE THE, THE NON-EXHAUSTIVE AGREEMENTS ARE INTENDED TO  
9           GIVE, PROVIDE IN SOME WAY SOME ASSURANCES TO THE CHIP COMPANY  
10          THAT THE CHIP COMPANY WILL NOT BE SUBJECT TO A LAWSUIT, BUT IT  
11          DOESN'T -- BUT THEY DON'T CONSTITUTE AN AUTHORIZATION TO SELL  
12          UNDER QUALCOMM'S PATENTS.

13                AND SO WE DON'T NEED TO BE COMPENSATED, RIGHT, FOR THAT IN  
14          TERMS OF MONEY.

15                AND, THEREFORE, WE CAN CONTINUE TO HAVE ALL OF THE VALUE  
16          THAT WOULD BE IN THE DEVICE LEVEL LICENSE, AND THE PROBLEMS  
17          ASSOCIATED WITH ALLOCATING VALUE BETWEEN THE CHIP LEVEL AND THE  
18          DEVICE LEVEL DON'T ARISE IN THIS CONTEXT.

19          Q.     DOES QUALCOMM GO OUT AND AFFIRMATIVELY SEEK TO ENTER INTO  
20          THESE NON-EXHAUSTIVE AGREEMENTS WITH CHIP SUPPLIERS?

21          A.     NO, WE DON'T. IT'S SOMETHING WE DO AS AN ACCOMMODATION  
22          WHEN PEOPLE SEEK THEM FROM US.

23                MR. BORNSTEIN: I HAVE NO FURTHER QUESTIONS, YOUR  
24          HONOR.

25                THE COURT: ALL RIGHT. TIME IS 1:35.

1 (PAUSE IN PROCEEDINGS.)

2 MR. MATHESON: MAY I APPROACH, YOUR HONOR (HANDING).

3 (PAUSE IN PROCEEDINGS.)

4 THE COURT: OKAY. LET ME KNOW WHEN YOU'RE READY.

5 MR. MERBER: YOUR HONOR, JUST TO CONFIRM, DID I GIVE  
6 YOU THE RIGHT DEPOSITION BINDER?

7 THE COURT: OH. MR. GONELL'S? YES.

8 MR. MERBER: GREAT.

9 THE COURT: OKAY. LET ME KNOW WHEN YOU'RE READY.

10 MR. MERBER: I'M READY, YOUR HONOR.

11 THE COURT: OKAY. 1:37. GO AHEAD, PLEASE.

12 MR. MERBER: KEN MERBER ON BEHALF OF THE FEDERAL  
13 TRADE COMMISSION.

14 **CROSS-EXAMINATION**

15 BY MR. MERBER:

16 Q. GOOD AFTERNOON, MR. GONELL.

17 A. GOOD AFTERNOON.

18 Q. YOU'RE NOT RESPONSIBLE FOR PATENT VALUATION, ARE YOU?

19 A. I AM NOT.

20 Q. AND YOU'RE NOT AWARE OF ANY ANALYSIS AT QUALCOMM THAT  
21 APPORTIONED THE VALUE OF ITS CELLULAR PATENTS BETWEEN STANDARD  
22 ESSENTIAL PATENTS AND NON-STANDARD ESSENTIAL PATENTS, ARE YOU?

23 A. MAY I HAVE THAT READ BACK?

24 Q. I CAN REPEAT IT.

25 A. OR CAN YOU REPEAT THE QUESTION.



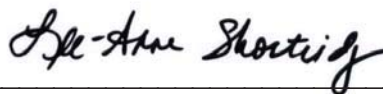
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LEE-ANNE SHORTRIDGE, CSR, CRR  
CERTIFICATE NUMBER 9595

DATED: JANUARY 18, 2019

A389

UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA  
SAN JOSE DIVISION

FEDERAL TRADE COMMISSION, ) C-17-00220 LHK  
)  
PLAINTIFF, ) SAN JOSE, CALIFORNIA  
)  
VS. ) JANUARY 15, 2019  
)  
QUALCOMM INCORPORATED, A ) VOLUME 6  
DELAWARE CORPORATION, )  
) PAGES 1112-1342  
DEFENDANT. )  
\_\_\_\_\_ )

TRANSCRIPT OF PROCEEDINGS  
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UNITED STATES DISTRICT JUDGE

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PROCEEDINGS RECORDED BY MECHANICAL STENOGRAPHY  
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A390

1 RIGHT?

2 A. THAT'S CORRECT. IF YOU LOOK AT THE NOTE HERE, HISILICON  
3 IS NOT SHOWN HERE. IT -- A REASONABLE ESTIMATE IS THAT THEY  
4 GAINED -- THEY ACTUALLY HAD A SHARE GOING UP FROM MAYBE HALF A  
5 PERCENT TO 3 PERCENT DURING THAT PERIOD OF TIME, 2014, '15,  
6 '16.

7 Q. AND IT COULD BE HIGHER; CORRECT?

8 A. WELL, THAT'S DR. CHIPTY'S NUMBER. I THINK -- C-H-I-P-T-Y  
9 SHOWN THERE.

10 I THINK -- WELL, I WOULD CERTAINLY SAY WE HAVE INCOMPLETE  
11 DATA. I THINK THIS WAS -- SHE CONSTRUCTED AN ESTIMATE. IT  
12 COULD BE TOO HIGH, IT COULD BE TOO LOW. THAT'S THE ESTIMATE.

13 Q. ACTUALLY, IN YOUR REPORT, YOU SAID IT COULD BE AS HIGH AS  
14 10.9 PERCENT IN 2016 FOR HUAWEI; CORRECT?

15 A. YES. I THINK I HAD A -- I HAD A DIFFERENT METHOD THAT LED  
16 TO A HIGHER UPPER END THERE. THESE ARE HER NUMBERS.

17 Q. OKAY. AND IF WE INCLUDED A 10 PERCENT NUMBER FOR  
18 HISILICON, THE SHARE FOR QUALCOMM AND OTHERS WOULD PROBABLY  
19 FALL FURTHER; CORRECT?

20 A. IT WOULD FALL FURTHER, YES.

21 Q. I THINK YOU SAID DURING YOUR DIRECT TESTIMONY THAT THE  
22 INDUSTRY WE'RE TALKING ABOUT HERE, MODEM CHIPS AND CELLULAR, IS  
23 SUBJECT TO RAPID TECHNOLOGICAL CHANGE.

24 DID I GET THAT RIGHT?

25 A. YOU DID.

1 Q. IN YOUR REPORT, YOU CALLED THIS INDUSTRY DYNAMIC; CORRECT?

2 A. YES, THAT -- I BELIEVE THAT. I THINK OF IT THAT WAY.

3 Q. OKAY. AND YOU RECOGNIZE THAT WHEN ANALYZING A MARKET  
4 THAT'S EXPERIENCING RAPID CHANGE, ONE'S ANALYSIS SHOULD ACCOUNT  
5 FOR CHANGING INDUSTRY CONDITIONS; RIGHT?

6 A. CERTAINLY.

7 Q. AND ACCORDING TO YOU, PROFESSOR SHAPIRO, IT'S NOT POSSIBLE  
8 TO CONDUCT A DETAILED ANALYSIS OF QUALCOMM'S MARKET POWER  
9 BEYOND THE AVAILABLE RELEVANT DATA OR OTHER EVIDENCE; ISN'T  
10 THAT RIGHT?

11 A. I WOULD TAKE THAT AS A TOTALITY. WE USE THE EVIDENCE WE  
12 HAVE AND WE CAN'T REALLY GO BEYOND THAT.

13 Q. OKAY. AND AT THE TIME YOU FORMED YOUR OPINIONS AND  
14 CREATED YOUR REPORT, IT WAS THE CASE THAT IT'S NOT REALLY  
15 POSSIBLE TO RELIABLY ANALYZE THE MARKET FOR 5G CHIPS AT THIS  
16 TIME?

17 A. WELL, IF YOU MEAN BY ANALYZE THE MARKET, PREDICT MARKET  
18 SHARES, FOR EXAMPLE, OR KNOW EXACTLY WHICH CHIPS OR DEVICES  
19 WILL COME OUT AT WHAT TIME, I THINK THAT'S, THAT'S FAIR.

20 WE DO HAVE A PRETTY GOOD INDICATION THAT QUALCOMM'S GOT  
21 SOME LEADERSHIP POSITION THERE, JUST AS THEY DID WITH 4G.

22 BUT THAT WOULD NOT BE A FULL ANALYSIS OF THE MARKET.

23 Q. RIGHT. AND YOU SAID IN YOUR REPORT, "IT IS THUS NOT  
24 POSSIBLE RELIABLY TO ANALYZE THE MARKET FOR 5G CHIPS AT THIS  
25 TIME."

1 RIGHT?

2 A. COULD YOU SHOW ME WHERE THAT IS? I WANT TO MAKE SURE I  
3 UNDERSTAND THE CONTEXT.

4 Q. SURE. IT'S IN PARAGRAPH 113 OF YOUR REPORT. YOUR REPORT  
5 IS IN THE FIRST TAB OF THE NOTEBOOK.

6 A. OKAY.

7 Q. WE CAN PUT IT UP ON THE SCREEN IF THAT'S EASIER.

8 A. NO. WELL, ACTUALLY, IT'S NOT EASIER FOR ME. BUT IT'S UP  
9 TO YOU.

10 Q. LET'S PUT IT UP ON THE SCREEN, PLEASE, PARAGRAPH 113.

11 A. OF MY REPORT?

12 Q. I'M SORRY.

13 A. THAT DOESN'T SEEM RIGHT TO ME.

14 Q. I APOLOGIZE. IT'S YOUR REBUTTAL REPORT. I APOLOGIZE.  
15 WE'VE GOT A LOT OF REPORTS.

16 A. THAT'S TRUE.

17 Q. CAN WE HAVE IT UP?

18 IT'S THE PARAGRAPH THAT SAYS, 5G-COMPLIANT CHIPS ARE NOT  
19 BEING INCORPORATED INTO HANDSETS UNTIL 2019.

20 NOW I HAVE IT.

21 "IT IS THUS NOT POSSIBLE RELIABLY TO ANALYZE THE MARKET  
22 FOR 5D CHIPS AT THIS TIME."

23 YOU SAID THAT IN YOUR REBUTTAL REPORT; CORRECT?

24 A. YES. AND WHY DON'T WE READ THE NEXT SENTENCE THEN.

25 Q. YOU'LL GET A CHANCE TO DO THAT, PROFESSOR SHAPIRO, WITH

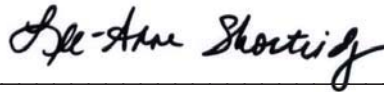
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CERTIFICATE NUMBER 9595

DATED: JANUARY 15, 2019

UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA  
SAN JOSE DIVISION

FEDERAL TRADE COMMISSION, ) C-17-00220 LHK  
)  
PLAINTIFF, ) SAN JOSE, CALIFORNIA  
)  
VS. ) JANUARY 28, 2019  
)  
QUALCOMM INCORPORATED, A ) VOLUME 10  
9 DELAWARE CORPORATION, )  
) PAGES 2027-2094  
10 DEFENDANT. )  
\_\_\_\_\_ )

TRANSCRIPT OF PROCEEDINGS  
BEFORE THE HONORABLE LUCY H. KOH  
UNITED STATES DISTRICT JUDGE

A P P E A R A N C E S:

FOR THE PLAINTIFF: FEDERAL TRADE COMMISSION  
BY: JENNIFER MILICI  
DANIEL J. MATHESON  
WESLEY G. CARSON  
RAJESH JAMES  
NATHANIEL M. HOPKIN  
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PROCEEDINGS RECORDED BY MECHANICAL STENOGRAPHY  
TRANSCRIPT PRODUCED WITH COMPUTER

A395

1 SAN JOSE, CALIFORNIA

JANUARY 28, 2019

2 P R O C E E D I N G S

3 (COURT CONVENED AT 9:02 A.M.)

4 THE COURT: GOOD MORNING AND WELCOME.

5 MR. VAN NEST: GOOD MORNING, YOUR HONOR.

6 MS. MILICI: GOOD MORNING.

7 THE COURT: PLEASE TAKE A SEAT.

8 AND CALL YOUR FIRST WITNESS.

9 MR. JAMES: RAJ JAMES FOR THE FTC.

10 THE FTC CALLS AS ITS NEXT WITNESS PROFESSOR CARL SHAPIRO.

11 MAY WE APPROACH WITH THE BINDERS?

12 THE COURT: YES, PLEASE. PAR.

13 THE CLERK: HE'S STILL UNDER OATH; CORRECT?

14 THE COURT: YES, YOU'RE STILL UNDER OATH, SIR.

15 MR. CARSON: MAY I APPROACH?

16 THE COURT: YES. AND I FAILED TO ASK,

17 MR. SUNG HOE AHN, WHO WAS A WITNESS AT THE END OF THE DAY LAST

18 FRIDAY BY VIDEO, IS HE SUBJECT TO RECALL OR NOT SUBJECT TO

19 RECALL?

20 MR. BYARS: NOT SUBJECT BY QUALCOMM, YOUR HONOR.

21 THE COURT: HE IS?

22 MR. BYARS: HE'S NOT.

23 THE COURT: I'M SORRY. I MISHEARD YOU. WHAT ABOUT  
24 FOR THE PLAINTIFF.

25 MS. IKEDA: WE INTEND TO CALL HIM AS A REBUTTAL

A396



1 WITNESS.

2 THE COURT: OKAY. ARE YOU READY?

3 **(PLAINTIFF'S WITNESS, CARL SHAPIRO, WAS PREVIOUSLY SWORN.)**

4 **DIRECT EXAMINATION**

5 BY MR. JAMES:

6 Q. WELCOME BACK, PROFESSOR SHAPIRO.

7 A. GOOD MORNING, MR. JAMES.

8 Q. HAVE YOU HEARD THE TESTIMONY PROVIDED HERE BY QUALCOMM'S  
9 ECONOMIC EXPERTS, DR. CHIPTY, PROFESSOR SNYDER, AND  
10 PROFESSOR NEVO?

11 A. YES, I HAVE.

12 Q. AND HAS THAT TESTIMONY CAUSED YOU TO SUBSTANTIALLY CHANGE  
13 ANY OF THE OPINIONS YOU OFFERED TO THIS COURT WHEN YOU  
14 TESTIFIED HERE TWO WEEKS AGO?

15 A. NO, BUT I APPRECIATE THE OPPORTUNITY TO RESPOND.

16 Q. LET'S START WITH THE TESTIMONY GIVEN BY QUALCOMM'S  
17 ECONOMIC EXPERTS REGARDING THE OVERALL CHARACTERISTICS AND  
18 PERFORMANCE OF THE MODEM CHIP INDUSTRY.

19 WHAT'S YOUR REACTION TO THAT TESTIMONY?

20 A. I THINK WE ALL AGREE THE INDUSTRY IS DYNAMIC. IT'S LIKE  
21 MANY OTHER HIGH TECH INDUSTRIES, PRODUCTS IMPROVE SIGNIFICANTLY  
22 OVER TIME, THERE ARE SUBSTANTIAL ECONOMIES OF SCALE, AND IT'S  
23 IMPORTANT FOR FIRMS TO MAKE SIGNIFICANT R&D INVESTMENTS IN  
24 ORDER TO REMAIN COMPETITIVE.

25 Q. AND YOUR CONCLUSIONS REGARDING THE COMPETITIVE EFFECTS OF

1 QUALCOMM'S CHALLENGED PRACTICES DIVERT QUITE SHARPLY FROM THOSE  
2 OF PROFESSOR SNYDER. WHY DO YOU REACH SUCH DIFFERENT  
3 CONCLUSIONS?

4 A. BECAUSE WE USE VERY DIFFERENT METHODOLOGIES.

5 Q. HOW WOULD YOU DESCRIBE YOUR METHODOLOGY FOR EVALUATING THE  
6 COMPETITIVE EFFECTS OF QUALCOMM'S CHALLENGED PRACTICES?

7 A. SO MY METHODOLOGY HAS TWO STEPS. FIRST, I ASSESS THE  
8 EVIDENCE REGARDING WHETHER QUALCOMM USED ITS CHIP LEVERAGE TO  
9 OBTAIN SUPRA-FRAND ROYALTIES, OR WHAT I'M CALLING A ROYALTY  
10 SURCHARGE.

11 AND THEN SECOND, I TRACED THROUGH THE EFFECTS OF THAT  
12 ROYALTY SURCHARGE ON THE MARKET GENERALLY, ON COMPETITION, AND  
13 ON CONSUMERS.

14 SO THE KEY TO THE METHODOLOGY, IT'S VERY FOCUSED ON THE  
15 PRACTICES AT HAND AND TRACING THROUGH THEIR EFFECTS.

16 Q. HOW DO YOU RESPOND TO CHARGES FROM ALL THREE OF QUALCOMM'S  
17 ECONOMIC EXPERTS THAT YOUR APPROACH IS PURELY THEORETICAL?

18 A. I DISAGREE. I DON'T THINK THAT'S TRUE OR FAIR.

19 THE FIRST STAGE OF THE ANALYSIS IS VERY MUCH FOCUSED ON  
20 THE EVIDENCE REGARDING QUALCOMM'S USE OF ITS CHIP LEVERAGE TO  
21 OBTAIN ROYALTY SURCHARGES.

22 I THINK THE -- WITH REGARDS TO NEVO IN PARTICULAR, REALLY  
23 HE DOES NOT WANT TO ENGAGE WITH THAT EVIDENCE.

24 AND THE SECOND STAGE OF THE ANALYSIS IS VERY MUCH ROOTED  
25 IN THE REALITY OF HOW THE BUSINESS WORKS, HOW OEM'S NEGOTIATE

A398

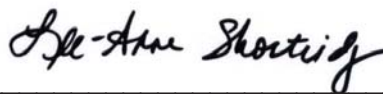
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DATED: JANUARY 28, 2019

A399

UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA  
SAN JOSE DIVISION

FEDERAL TRADE COMMISSION, ) C-17-00220 LHK  
)  
PLAINTIFF, ) SAN JOSE, CALIFORNIA  
)  
VS. ) JANUARY 29, 2019  
)  
QUALCOMM INCORPORATED, A ) VOLUME 11  
9 DELAWARE CORPORATION, )  
) PAGES 2095-2183  
10 DEFENDANT. )  
\_\_\_\_\_ )

TRANSCRIPT OF PROCEEDINGS  
BEFORE THE HONORABLE LUCY H. KOH  
UNITED STATES DISTRICT JUDGE

A P P E A R A N C E S:

FOR THE PLAINTIFF: FEDERAL TRADE COMMISSION  
BY: JENNIFER MILICI  
DANIEL J. MATHESON  
WESLEY G. CARSON  
KENT COX  
NATHANIEL M. HOPKIN  
PHILIP J. KEHL  
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600 PENNSYLVANIA AVENUE, NW  
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OFFICIAL COURT REPORTERS: LEE-ANNE SHORTRIDGE, CSR, CRR  
CERTIFICATE NUMBER 9595  
IRENE RODRIGUEZ, CSR, CRR, RMR  
CERTIFICATE NUMBER 8074

PROCEEDINGS RECORDED BY MECHANICAL STENOGRAPHY  
TRANSCRIPT PRODUCED WITH COMPUTER

A400

1 QUALCOMM WORKED HARD TO DEVELOP THE USE OF CDMA TECHNOLOGY  
2 IN CELLULAR COMMUNICATIONS. THAT'S CERTAINLY ADMIRABLE.

3 BUT THAT DOESN'T GIVE QUALCOMM THE RIGHT TO IMPEDE  
4 COMPETITORS.

5 AND AS DR. JACOBS TESTIFIED, QUALCOMM CHOSE TO STANDARDIZE  
6 CDMA TECHNOLOGY THROUGH TIA IN ORDER TO MONETIZE ITS PRODUCTS.

7 STANDARDIZATION BROUGHT IT A WIDER CUSTOMER BASE FOR ITS  
8 PRODUCTS AND MORE LICENSED UNITS.

9 BUT IN EXCHANGE FOR THAT WIDER CUSTOMER BASE, QUALCOMM  
10 MADE A FRAND COMMITMENT, FIRST TO TIA AND THEN TO OTHERS. AND  
11 THAT WAS THE BARGAIN THAT QUALCOMM VOLUNTARILY STRUCK. MORE  
12 CHIP CUSTOMERS AND MORE LICENSED UNITS, BUT CONSTRAINED  
13 LICENSING TERMS.

14 NOW, OVER THE YEARS, QUALCOMM CONTINUED TO CONTRIBUTE  
15 TECHNOLOGY TO STANDARDIZATION. AND IT'S STRONG PRESENCE IN THE  
16 STANDARD SETTING PROCESS HAS GIVEN ITS CHIP BUSINESS A  
17 SIGNIFICANT TIME TO MARKET ADVANTAGE, AS YOU CAN SEE ON THIS  
18 SLIDE.

19 QUALCOMM HAS ENJOYED AN ESPECIALLY STRONG CHIP POSITION AT  
20 THE EARLY STAGE OF THE NEW STANDARDS, AND THIS IS THE EVIDENCE  
21 THAT WE ARE SEEING AGAIN IN 5G.

22 BUT OVER THE PAST 25 YEARS, AS QUALCOMM HAS CONTINUED  
23 PARTICIPATING IN STANDARDIZATION, ITS SHARE OF STANDARD  
24 ESSENTIAL PATENTS HAS DECLINED.

25 AS YOU CAN SEE IN THIS INTERNAL DOCUMENT, ITS SHARE OF 2G

A401

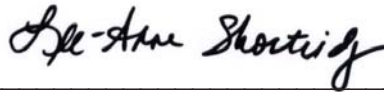
CERTIFICATE OF REPORTERS

WE, THE UNDERSIGNED OFFICIAL COURT REPORTERS OF THE  
UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF  
CALIFORNIA, 280 SOUTH FIRST STREET, SAN JOSE, CALIFORNIA, DO  
HEREBY CERTIFY:

THAT THE FOREGOING TRANSCRIPT, CERTIFICATE INCLUSIVE, IS  
A CORRECT TRANSCRIPT FROM THE RECORD OF PROCEEDINGS IN THE  
ABOVE-ENTITLED MATTER.



IRENE RODRIGUEZ, CSR, CRR  
CERTIFICATE NUMBER 8076



LEE-ANNE SHORTRIDGE, CSR, CRR  
CERTIFICATE NUMBER 9595

DATED: JANUARY 29, 2019

A402

UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA  
SAN JOSE DIVISION

FEDERAL TRADE COMMISSION, ) C-17-00220 LHK  
)  
PLAINTIFF, ) SAN JOSE, CALIFORNIA  
)  
VS. ) JANUARY 15, 2019  
)  
QUALCOMM INCORPORATED, A ) VOLUME 6  
DELAWARE CORPORATION, )  
) PAGES 1112-1342  
DEFENDANT. )  
\_\_\_\_\_ )

TRANSCRIPT OF PROCEEDINGS  
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UNITED STATES DISTRICT JUDGE

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PROCEEDINGS RECORDED BY MECHANICAL STENOGRAPHY  
TRANSCRIPT PRODUCED WITH COMPUTER

A403

1           A.     IT WILL BE VERY BRIEF INDEED.   THIS IS JUST A RECAP.

2                   I THINK THE THREE POLICIES WORK TOGETHER, AND REALLY THE  
3 NO LICENSE, NO CHIPS WORKING TOGETHER WITH THE REFUSAL TO  
4 LICENSE RIVALS SET UP A SITUATION WHERE QUALCOMM WAS ABLE TO  
5 USE ITS CHIP LEVERAGE TO BRING TO BEAR IN NEGOTIATIONS WITH  
6 OEM'S TO GET UNREASONABLY HIGH ROYALTIES ON ITS CELLULAR SEPS,  
7 AND CRITICALLY SO THAT WHEN AN OEM PURCHASED A MODEM CHIP FROM  
8 A RIVAL OF QUALCOMM, THEY WOULD BE PAYING QUALCOMM MORE THAN A  
9 REASONABLE AMOUNT.

10                   AND THAT ULTIMATELY LEADS TO A VARIETY OF HARMS TO  
11 COMPETITION.   THAT'S THE CENTRAL POINT ABOUT NO LICENSE, NO  
12 CHIPS, AND THEN WE HAD THIS ADDITIONAL MUCH MORE SPECIFIC  
13 CONDUCT, IN PARTICULAR THE CONTRACT SIGNED IN 2013 WITH APPLE,  
14 THAT FURTHER HAD -- CAUSED SOME ADDITIONAL DANGER OF HARM TO  
15 COMPETITION BECAUSE INTEL WAS TRYING TO GET IN AT THAT TIME.

16                   MR. JAMES:   NO FURTHER QUESTIONS.

17                   THE COURT:   OKAY.   IT'S 10:39.

18                   LET'S GO AHEAD, PLEASE, AND TAKE A 15 MINUTE BREAK.

19                   THANK YOU.   WE'LL SEE YOU IN 15 MINUTES.

20                   (RECESS FROM 10:40 A.M. UNTIL 10:56 A.M.)

21                   THE COURT:   GOOD MORNING.   WELCOME BACK.   PLEASE TAKE  
22 A SEAT.

23                   OKAY.   TIME IS 10:56.   GO AHEAD, PLEASE.

24                   MR. VAN NEST:   THANK YOU, YOUR HONOR.   WE'VE PASSED  
25 OUT THE NOTEBOOKS TO PROFESSOR SHAPIRO, AND THE COURT HAS ONE



1 AS WELL.

2 THE COURT: OKAY. THANK YOU.

3 MR. VAN NEST: YOU'RE WELCOME.

4 **CROSS-EXAMINATION**

5 BY MR. VAN NEST:

6 Q. GOOD MORNING, PROFESSOR SHAPIRO.

7 A. GOOD MORNING.

8 Q. YOU TESTIFIED THAT QUALCOMM POSSESSED MONOPOLY POWER IN  
9 CDMA MODEM CHIPS FROM 2006 THROUGH 2016; IS THAT RIGHT?

10 A. YES, THAT'S CORRECT.

11 Q. AND YOU ALSO TESTIFIED THAT QUALCOMM POSSESSED MONOPOLY  
12 POWER, IN YOUR VIEW, IN THE PREMIUM LTE MARKET YOU DEFINE IN  
13 2011 THROUGH 2016; CORRECT?

14 A. YES.

15 Q. BUT YOU'RE NOT OFFERING ANY OPINION THAT QUALCOMM HAS  
16 MONOPOLY POWER IN ANY CHIP MARKET IN 2017; ISN'T THAT RIGHT?

17 A. THAT IS CORRECT.

18 Q. AND SIMILARLY, YOU'RE NOT OFFERING ANY OPINION THAT  
19 QUALCOMM HAS MONOPOLY POWER IN ANY CHIP MARKET IN 2018, EITHER?

20 A. THAT IS CORRECT.

21 Q. IN FACT, AS YOU NOTED IN YOUR REPORT, QUALCOMM'S SHARE OF  
22 WHAT YOU CALL PREMIUM LTE CHIPS FELL IN 2015 AND 2016 AS  
23 SAMSUNG, INTEL, AND MEDIATEK CAME INTO THE MARKET; RIGHT?

24 A. THAT IS CORRECT.

25 Q. AND YOU ALSO NOTED THAT QUALCOMM'S MARKET SHARE IN WHAT

1 YOU CALL PREMIUM LTE FELL IN 2017 AS A RESULT OF INTEL GAINING  
2 GROUND AT APPLE; CORRECT?

3 A. I NOTED THAT FOR 2016 IN MY TESTIMONY.

4 Q. YOU ALSO TESTIFIED THAT THERE WAS SOME DIMINISHMENT OF  
5 QUALCOMM'S MARKET POWER IN 2017 RELATIVE TO 2016 AS A RESULT OF  
6 INTEL GETTING IN AT APPLE?

7 A. I DON'T -- ARE YOU USING THE DEPOSITION OR -- HERE NOW IN  
8 COURT?

9 Q. I'M JUST ASKING WHETHER YOU REMEMBER TESTIFYING TO THAT  
10 DURING YOUR DEPOSITION?

11 A. OH, YES. I DIDN'T KNOW YOU WERE REFERRING TO MY  
12 DEPOSITION. I DO REMEMBER THAT.

13 Q. OKAY. AND YOU STAND BY THAT TESTIMONY TODAY?

14 A. I DO.

15 Q. OKAY. AND QUALCOMM'S MARKET SHARE IN CDMA WENT DOWN IN  
16 2017 AS A RESULT OF ADDITIONAL COMPETITION THERE, TOO. YOU  
17 TESTIFIED TO THAT?

18 A. YES, I THINK THAT'S CORRECT. THERE'S BEEN -- THEIR MARKET  
19 SHARE DECLINED AS BEST WE COULD MEASURE IT, WHICH WAS IMPERFECT  
20 DUE TO DATA LIMITATIONS.

21 Q. AND ACCORDING TO YOUR CALCULATIONS, QUALCOMM'S MARKET  
22 SHARE IN THE PREMIUM LTE MARKET YOU DEFINED HAS DECLINED QUITE  
23 A BIT IN THE LAST COUPLE OF YEARS THAT YOU ANALYZED; RIGHT?

24 A. I THINK THAT'S FAIR.

25 Q. CAN WE HAVE PROFESSOR SHAPIRO'S SLIDE 16, PLEASE.

A406

1           THIS IS FROM YOUR REPORT. DO YOU SEE IT THERE, PROFESSOR  
2 SHAPIRO?

3           A. I DO.

4           Q. YOU CAN SEE THAT IN, ACCORDING TO YOUR CALCULATIONS, IN  
5 2014 IN THE PREMIUM LTE MARKET, YOU HAD QUALCOMM AT 96.7  
6 PERCENT; 81 PERCENT IN 2015; 57 PERCENT IN 2016; CORRECT?

7           A. 57 PERCENT IN 2016, THAT'S RIGHT, AS SHOWN HERE, THAT'S  
8 CORRECT.

9           Q. THAT'S RIGHT. SO AS YOU JUST SAID A MOMENT AGO,  
10 QUALCOMM'S SHARES IN THIS MARKET FELL FAIRLY DRAMATICALLY IN  
11 THOSE LAST COUPLE OF YEARS?

12          A. THEY FELL FROM 97 PERCENT TO 81 TO 57.

13          Q. OKAY. AND DURING THAT SAME PERIOD, SAMSUNG AND MEDIATEK,  
14 THEIR SHARES GREW QUICKLY; RIGHT?

15          A. YES, THAT IS TRUE, ESPECIALLY MEDIATEK AS SHOWN IN THIS  
16 DIAGRAM.

17          Q. MEDIATEK CAME INTO THE MARKET IN LATE 2014, AND BY 2016  
18 THEY HAD 27.4 PERCENT; CORRECT?

19          A. THAT'S CORRECT, WE'RE MEASURING BY UNITS HERE, MOST IN  
20 CHINA.

21          Q. AND SAMSUNG SIMILARLY GREW QUICKLY. THEY CAME IN AND BY  
22 2016, THEY ALSO HAD 8 PERCENT OF THIS MARKET?

23          A. THAT'S RIGHT, THEY'RE VERTICALLY INTEGRATED.

24          Q. AND THESE FIGURES DON'T INCLUDE HUAWAI AND HISILICON  
25 BECAUSE YOU WEREN'T ABLE TO GET AHOLD OF THAT DATA; IS THAT

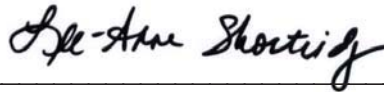
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CERTIFICATE NUMBER 8076



LEE-ANNE SHORTRIDGE, CSR, CRR  
CERTIFICATE NUMBER 9595

DATED: JANUARY 15, 2019

A408

UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA  
SAN JOSE DIVISION

FEDERAL TRADE COMMISSION, ) C-17-00220 LHK  
)  
PLAINTIFF, ) SAN JOSE, CALIFORNIA  
)  
VS. ) JANUARY 22, 2019  
)  
QUALCOMM INCORPORATED, A ) VOLUME 8  
DELAWARE CORPORATION, )  
) PAGES 1585-1828  
DEFENDANT. )  
\_\_\_\_\_ )

TRANSCRIPT OF PROCEEDINGS  
BEFORE THE HONORABLE LUCY H. KOH  
UNITED STATES DISTRICT JUDGE

A P P E A R A N C E S:

FOR THE PLAINTIFF: FEDERAL TRADE COMMISSION  
BY: JENNIFER MILICI  
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PROCEEDINGS RECORDED BY MECHANICAL STENOGRAPHY  
TRANSCRIPT PRODUCED WITH COMPUTER

A409

1       A.     WELL, I DON'T AGREE WITH THAT CHARACTERIZATION FOR A FEW  
2       REASONS.

3               FIRST OF ALL, IF WE LOOK AT MEDIATEK, MEDIATEK, BY  
4       PROFESSOR SHAPIRO'S OWN CALCULATION, HAS ABOUT A 25 PERCENT  
5       SHARE BY 2016 IN HIS PREMIUM LTE MARKET.

6               SO CERTAINLY HE AND I AGREE THAT MEDIATEK IS AN IMPORTANT  
7       PLAYER TODAY IN, OR AS OF 2018, IN THE PREMIUM MARKET AS HE  
8       WOULD DEFINE IT.

9               IN ADDITION, I'VE ALSO SEEN EVIDENCE IN THE RECORD THAT  
10      SAMSUNG IS COMPETING FOR THIRD PARTY BUSINESS, AND I AGAIN  
11      THINK THAT PROFESSOR SHAPIRO WOULD AGREE WITH ME ON THAT.

12              AND THEN FINALLY, EVEN IF SAMSUNG AND HUAWEI DON'T COMPETE  
13      IN THE MERCHANT MARKET -- WHICH I DON'T BELIEVE TO BE TRUE FOR  
14      SAMSUNG AT LEAST -- I WOULD STILL SAY THAT THEIR SELF-SUPPLY IS  
15      COMPETITIVELY SIGNIFICANT BECAUSE, IN FACT, THE TWO ARE TWO OF  
16      THE THREE BIG BUYERS IN PROFESSOR SHAPIRO'S PREMIUM MARKET.

17      Q.     WHAT IMPLICATION DOES ALL OF THIS HAVE FOR  
18      PROFESSOR SHAPIRO'S INTERPRETATION OF MARKET SHARES AND AN  
19      INFERENCE OF MARKET POWER?

20      A.     I THINK THAT PROFESSOR SHAPIRO'S RELIANCE ON  
21      CONTEMPORANEOUS MARKET SHARES, AS AN INDICATOR FOR MARKET POWER  
22      IN A PARTICULAR YEAR, IS CHALLENGING FOR HIM BECAUSE, IN FACT,  
23      THE SHARES THEMSELVES REFLECT THE COMPETITIVE EVENTS AND EVEN  
24      THEN ONLY THE WINNERS, THE IMPORTANCE OF THE WINNERS OF  
25      COMPETITIVE EVENTS FROM PRIOR YEARS.

1 SO, FOR EXAMPLE, THE 2016 SHARES WOULD LIKELY REFLECT  
2 WINNERS FROM INNOVATION RACES IN THE CHIP SELECTION PERIOD FROM  
3 SOMETHING EVEN AS FAR BACK AS 2013 AND 2014.

4 IN MY VIEW, THESE SHARES DO NOT PROVIDE A COMPLETE PICTURE  
5 OF COMPETITIVE SIGNIFICANCE AND MARKET POWER IN 2016.

6 Q. LET'S TRY AND SEE WHAT WE CAN LEARN FROM MARKET SHARES  
7 NONETHELESS.

8 SO IF YOU TURN TO SLIDE 11.

9 AND WHAT DOES SLIDE 11 REPRESENT?

10 A. SO SLIDE 11, THIS DESCRIBES MARKET SHARES, OR SHARES IN  
11 PROFESSOR SHAPIRO'S PREMIUM MARKET. THESE ARE ESSENTIALLY  
12 PROFESSOR SHAPIRO'S CALCULATIONS WITH TWO CHANGES.

13 FIRST, I'VE ADDED HISILICON. ITS PRESENCE IS SHOWN WITH  
14 THE YELLOW SLICE BEGINNING IN 2015. PROFESSOR SHAPIRO DID NOT  
15 ILLUSTRATE HISILICON IN HIS SHARE CHART, SO I'VE ADDED THIS ON.

16 AND ALSO, HE STOPS HIS ANALYSIS IN 2016, AND I'VE EXTENDED  
17 IT FURTHER OUT TO 2017 TO CAPTURE SOME OF THE EFFECTS OF THE  
18 COMPETITIVE EVENTS I'VE DESCRIBED.

19 Q. WHAT, IF ANYTHING, CAN WE LEARN FROM THE TREND IN  
20 QUALCOMM'S SHARES DEPICTED ON THIS SLIDE?

21 A. WELL, WHAT I SEE WHEN I LOOK AT THE TRENDS IS THAT  
22 QUALCOMM IS LOSING SHARE. I SEE ENTRANTS, I SEE INTEL,  
23 MEDIATEK, SAMSUNG, HUAWEI GAINING SHARE, AND THE SHARE GAIN IS  
24 COMING AT QUALCOMM'S EXPENSE.

25 FROM 2014 TO 2017, I SEE QUALCOMM HAS LOST 50 SHARE

1 POINTS.

2 THE COURT: CAN I ASK YOU A QUESTION? THIS 2014, IS  
3 THE TOP ORANGE OR IS THAT YELLOW? I COULDN'T TELL.

4 THE WITNESS: GIVE ME ONE SECOND, YOUR HONOR.

5 THANK YOU. IT'S YELLOW. IT'S ACTUALLY A SLIVER OF  
6 HISILICON COMING IN.

7 MR. EVEN: MAY I PROCEED, YOUR HONOR?

8 THE COURT: GO AHEAD. I THOUGHT SHE SAID HISILICON  
9 CAME IN IN 2015.

10 THE WITNESS: I DID, YOUR HONOR, FROM LOOKING AT THE  
11 CHART QUICKLY. BUT MY EYE WAS NOT PICKING UP THE YELLOW SLIVER  
12 UNTIL WE ZOOMED IN.

13 THE COURT: OKAY. GO AHEAD, PLEASE.

14 BY MR. EVEN:

15 Q. LET'S TURN TO CDMA. WHAT IS YOUR MAIN OBSERVATION ABOUT  
16 THE CDMA MARKET?

17 A. WELL, I THINK THAT THE CDMA MARKET UP UNTIL 2016 WAS  
18 RELATIVELY STAGNANT, AND SINCE 2016, WE'VE SEEN SOME  
19 SIGNIFICANT CHANGES IN THE COMPETITIVE LANDSCAPE.

20 Q. AND WHAT CHANGES HAVE YOU IDENTIFIED IN THE COMPETITIVE  
21 LANDSCAPE SINCE 2016?

22 A. PROBABLY THE MOST SIGNIFICANT CHANGE BEGINS WITH THE  
23 INCREASED DEMAND FOR CDMA BECAUSE OF THE RISE OF SIX MODE IN  
24 CHINA.

25 Q. AND WHAT DO YOU MEAN BY THE RISE OF SIX MODE?



1 A. WELL, IN 2016 THE CHINESE GOVERNMENT IMPLEMENTED A  
2 NATIONAL STANDARD FOR HANDSETS TO EMBODY SIX COMMUNICATION  
3 STANDARDS, INCLUDING CDMA.

4 Q. AND HAVE YOU STUDIED THE EFFECTS OF THIS RISE OF SIX MODE?

5 A. YES, I HAVE.

6 Q. SO LET'S GO TO THE NEXT SLIDE.

7 AND WHAT ARE YOU SHOWING ON THIS SLIDE?

8 A. WELL, THIS SLIDE IS SHOWING WHAT'S ACTUALLY HAPPENING ON  
9 THE GROUND, OR IN CHINA. IT'S DESCRIBING THE PERIOD OF TIME OF  
10 PHONES SOLD IN CHINA THAT ARE CDMA ENABLED.

11 IT SHOWS YOU THIS NUMBER FOR 2004 TO 2017, AND AS YOU CAN  
12 SEE, FROM 2004 TO ABOUT 2014, THAT NUMBER, THAT PERIOD OF TIME  
13 OF PHONES THAT ARE CDMA ENABLED IN CHINA REMAINS RELATIVELY  
14 STABLE.

15 IT BEGINS TO SPIKE IN 2015, AND BY 2017, 90 PERCENT OF THE  
16 PHONES SOLD IN CHINA ARE CDMA ENABLED.

17 Q. IF YOU TURN TO TAB 2, THAT'S QX 9331, AND THIS IS A  
18 DOCUMENT THAT'S BEEN SEALED, YOUR HONOR. I'M ONLY GOING TO  
19 SPEAK TO DR. CHIPTY ABOUT PORTIONS THAT HAVE NOT BEEN SEALED.

20 AND IF YOU TURN TO PAGES 1 AND 2 OF THE ENGLISH  
21 TRANSLATION, WHAT IS THAT DOCUMENT SHOWING YOU RELATED TO YOUR  
22 OPINION ABOUT THE ENTRY INTO THE CDMA MARKET?

23 A. WELL, SO THIS IS A MEMORANDUM, AN INTERNAL MEMORANDUM AT  
24 SAMSUNG CIRCA MARCH 2016.

25 AND I SEE SEVERAL PIECES OF INFORMATION HERE THAT ARE

A413

1 RELEVANT TO MY OPINION ON CDMA.

2 FIRST OF ALL, I SEE THAT --

3 THE COURT: CAN I INTERRUPT YOU A SECOND? HAS THIS  
4 BEEN ADMITTED?

5 MR. EVEN: THIS HAS NOT BEEN ADMITTED, YOUR HONOR.

6 THE COURT: OKAY. I PREFER THAT DOCUMENTS BE  
7 ADMITTED BEFORE THERE'S TESTIMONY ABOUT THEIR CONTENTS. SO  
8 WOULD YOU LIKE TO ADMIT THIS ONE?

9 MR. EVEN: I'M HAPPY TO ADMIT IT FOR THE PURPOSES OF  
10 DR. CHIPTY'S RELIANCE ON IT.

11 THE COURT: OKAY. ANY OBJECTION?

12 MR. MATHESON: I'M NOT SURE WHAT THAT MEANS, YOUR  
13 HONOR. FOR PURPOSES OF DR. CHIPTY'S RELIANCE UPON IT? THIS  
14 WAS DONE WITH DR. LASINSKI, OR MR. LASINSKI WHEN IT WAS A  
15 STATEMENT OF A PARTY OPPONENT, WHICH IS NOT HEARSAY.

16 THIS DOCUMENT IS HEARSAY, AND IT'S NOT CLEAR WHY WE WOULD  
17 NEED TO ADMIT THIS DOCUMENT IN ORDER TO DEMONSTRATE SHE RELIED  
18 ON THIS PARTICULAR DOCUMENT. IT DOES NOT SEEM TO BE RELEVANT.  
19 SHE SHOULD BE ABLE TO EXPLAIN THE CONCLUSIONS SHE HAS DRAWN  
20 FROM THE EVIDENCE THAT SHE HAS REVIEWED WITHOUT SIMPLY RELAYING  
21 HEARSAY INTO THE RECORD.

22 THE COURT: THIS IS THE SAME PROBLEM WE HAD BEFORE.

23 MR. EVEN: I'M HAPPY TO JUST ADMIT IT.

24 THE COURT: WHY CAN'T SHE JUST SAY WHAT HER  
25 CONCLUSION IS WITHOUT READING IT INTO THE RECORD? OR WE CAN

1 JUST ADMIT IT. I -- YOU'RE SAYING IT'S HEARSAY?

2 MR. EVEN: I'M HAPPY TO ADMIT IT INTO THE RECORD SO  
3 IT'S ON THE RECORD THAT THIS IS A DOCUMENT SHE HAS LOOKED AT.

4 THE COURT: BUT YOU WERE PLANNING TO HAVE HER READ IT  
5 INTO THE TRANSCRIPT WHEN IT HASN'T BEEN ADMITTED. I HAVE A  
6 PROBLEM WITH THAT.

7 MR. EVEN: SHE'S NOT READING IT. SHE'S EXPLAINING  
8 WHAT IT IS AND HOW IT SUPPORTS HER OPINION AS TO WHAT HAPPENED  
9 IN -- WHAT'S SPURRED THE ENTRY IN 2015 AND 2016 INTO CDMA.

10 THE COURT: BUT IF IT'S HEARSAY, I MEAN, I GUESS  
11 EXPERTS CAN RELY ON HEARSAY. SO WHAT'S THE PROBLEM WITH THAT,  
12 MR. MATHESON?

13 MR. MATHESON: THERE'S ABSOLUTELY NO PROBLEM WITH HER  
14 OFFERING TESTIMONY ABOUT THE CONCLUSIONS SHE DREW OR EXPLAINING  
15 WHAT SHE REVIEWED. I JUST DON'T KNOW WHY SHE NEEDS TO EXPLAIN  
16 THE WORDS, OR WHY WE NEED THE WORDS OF THIS DOCUMENT IN THE  
17 RECORD IN ORDER FOR HER TO EXPLAIN HER CONCLUSIONS. IF SHE'S  
18 GOING TO EXPLAIN HER CONCLUSIONS, WHY DO WE NEED THE DOCUMENT  
19 IN THE RECORD?

20 MR. EVEN: SO I'M PERFECTLY HAPPY TO DO WHATEVER YOUR  
21 HONOR PREFERS. I THINK IT MAY BE HELPFUL FOR SOMEBODY LATER ON  
22 TO SEE WHAT IT IS EXACTLY THAT WAS SHOWN TO DR. CHIPTY SO THAT  
23 SHE -- THAT PEOPLE UNDERSTAND WHAT IT IS THAT SHE RELIED ON.

24 THE COURT: SO WHAT'S THE BASIS FOR THIS BEING  
25 ADMITTED? IT'S NOT AN ADMISSION OF A PARTY OPPONENT. IT'S NOT

1 A BUSINESS RECORD. YOU HAVEN'T ESTABLISHED IT'S A BUSINESS  
2 RECORD. SO WHAT'S THE HEARSAY EXCEPTION THEN TO GET IT IN?

3 MR. EVEN: I'M NOT OFFERING IT AS A HEARSAY  
4 EXCEPTION. AS YOUR HONOR STATED, DR. CHIPTY IS PERFECTLY  
5 ENTITLED TO RELY ON HEARSAY TO FORM HER OPINIONS. SHE'S  
6 EXPLAINING HOW THIS DOCUMENT IS RELEVANT TO HER OPINIONS. SHE  
7 CAN DO THAT WITH THE DOCUMENT BEING ADMITTED OR NOT BEING  
8 ADMITTED, EITHER WAY IS FINE.

9 I DO THINK THAT THERE IS SOME HOUSEKEEPING ADVANTAGE IN  
10 HAVING THE DOCUMENT IN THE RECORD SO IF SOMEBODY EVER LOOKS AT  
11 IT, THEY CAN UNDERSTAND WHAT IT IS THAT SHE LOOKED AT. BUT I'M  
12 PERFECTLY HAPPY NOT TO DO IT IF YOUR HONOR THINKS THAT'S  
13 IMPROPER.

14 WE HAVE DONE IT WITH, WITH MR. LASINSKI, AS MR. MATHESON  
15 MENTIONED. I DON'T THINK THAT IT WAS ENTERED INTO EVIDENCE AT  
16 THE TIME AS AN EXCEPTION TO HEARSAY OR ANYTHING LIKE THAT.

17 I THINK IT WAS ENTERED FOR THE VERY SAME HOUSEKEEPING  
18 PROCESS THAT I'M TALKING ABOUT, JUST SHOWING WHAT IT IS THAT  
19 THE EXPERT ACTUALLY LOOKED AT OR DESCRIBED IN HIS TESTIMONY.  
20 MR. BORNSTEIN IS HERE AND HE CAN CORRECT ME IF I'M WRONG.

21 THE COURT: I'M SORRY. YOU'RE SAYING WE ADMITTED  
22 INADMISSIBLE DOCUMENTS DURING MR. LASINSKI'S TESTIMONY? WHAT  
23 EXHIBIT WAS THAT?

24 MR. EVEN: I'M SAYING -- I DON'T HAVE THE NUMBER WITH  
25 ME, BUT I DO BELIEVE THAT YOUR HONOR SUGGESTED AT THE TIME, AND

1 I THINK BOTH PARTIES SAID THAT IT'S FINE TO ADMIT IT FOR THE  
2 LIMITED PURPOSE OF SHOWING WHAT IS THE DOCUMENT THAT THE EXPERT  
3 RELIED UPON.

4 THE COURT: AND WHAT WAS THE NUMBER FOR THAT?

5 MR. EVEN: WE'LL TRY AND FIND THAT OUT.

6 MR. MATHESON: YOUR HONOR, I DON'T WANT TO WASTE  
7 TIME. THE ONE WE LIMITED WITH MR. LASINSKI WAS ADMITTED FOR A  
8 SPECIFIC PURPOSE, WHICH WAS TO DEMONSTRATE THAT THE STUDIES ON  
9 WHICH HE RELIED WERE THE SAME STUDIES THAT QUALCOMM HAD ITSELF  
10 STUDIED OF OTHER PARTIES, AND IT WAS A STATEMENT OF A PARTY  
11 OPPONENT. WE DID NOT SEEK TO ADMIT IT FOR THE TRUTH.

12 BUT IF WE'RE NOT GOING TO ADMIT IT NOT FOR THE TRUTH, I  
13 SUPPOSE WE CAN MOVE PAST IT. I WANT IT TO BE CLEAR THIS IS  
14 HEARSAY, SHE SHOULD NOT READ IT INTO THE RECORD. BUT I WILL  
15 WITHDRAW THE OBJECTION, YOUR HONOR.

16 MR. EVEN: I'M HAPPY TO MOVE ON, YOUR HONOR.

17 THE COURT: ALL RIGHT. WHY DON'T YOU MOVE ON. I'M  
18 NOT GOING TO ADMIT THIS DOCUMENT.

19 GO AHEAD, PLEASE.

20 MR. EVEN: OKAY.

21 Q. DR. CHIPTY, CAN YOU JUST EXPLAIN HOW THIS DOCUMENT IS  
22 RELEVANT TO YOUR OPINION ABOUT ENTRY IN CHINA?

23 A. SURE. I CAN DO THAT, I THINK, VERY EASILY.

24 SO I ALREADY JUST DESCRIBED TO YOU THAT EMPIRICALLY WHAT I  
25 SEE IS AN INCREASE IN THE PERCENT OF PHONES SOLD IN CHINA THAT

1 ARE CDMA. SO I WAS LOOKING AT THE RECORD FOR EVIDENCE, AND I  
2 HAVE ADDITIONAL EVIDENCE THAT I RELIED ON, SOME OF WHICH I'M  
3 PREPARED TO SHARE TODAY.

4 BUT IN THIS PARTICULAR INSTANCE, I FOUND IT INSTRUCTIVE  
5 THAT THERE WAS AN INTERNAL MEMORANDUM AT SAMSUNG DISCUSSING  
6 EXACTLY THE STRATEGY TO ENTER CDMA, AND I FOUND THAT TO BE  
7 RELEVANT.

8 AND WHEN I LOOK AT THIS DOCUMENT, I SEE THE ECONOMICS THAT  
9 I WOULD HAVE EXPECTED PLAYING OUT BECAUSE THE RECOGNITION THAT,  
10 IN FACT, DEMAND IN CHINA FOR CDMA IS INCREASING, THAT WAS  
11 CONSISTENT WITH WHAT I SAW EMPIRICALLY.

12 I ALSO SAW THAT SAMSUNG HAD RECOGNIZED THAT ITS  
13 COMPETITORS WERE PUTTING INTO PLAN STRATEGIES TO MEET THAT  
14 CHINA MARKET DEMAND.

15 AND THEN FINALLY, I SEE IN THIS PIECE OF EVIDENCE, AS WELL  
16 AS OTHERS, THAT, IN FACT, SAMSUNG ITSELF IS GEARING UP TO ENTER  
17 CDMA TO MEET THE CHINA DEMAND.

18 Q. WHAT DO YOU LEARN FROM ALL THIS ABOUT ENTRY, ABOUT ENTRY  
19 INTO THE CDMA MARKET?

20 A. WELL, I SEE THAT RAPID ENTRY IS POSSIBLE. NOT ONLY IS IT  
21 POSSIBLE, IT ACTUALLY HAPPENED.

22 I SEE THE DIFFERENT WAYS IN WHICH COMPETITORS ENTERED.  
23 FOR EXAMPLE, I SEE THAT INTEL BOUGHT VIA FOR A FRACTION OF WHAT  
24 IT SPENDS ANNUALLY ON CHIP DEVELOPMENT.

25 I SEE THAT MEDIATEK PURCHASED DESIGN FOR CDMA FROM VIA.

1           AND I ALSO SEE THAT SAMSUNG AND HUAWEI ENTERED WITH THEIR  
2           OWN INTERNAL SOLUTION WITHIN TWO YEARS OF THE CHINA  
3           ANNOUNCEMENT.

4           Q.    AND WHAT DOES THIS TEACH YOU ABOUT, OR WHAT CONCLUSIONS DO  
5           YOU DRAW FROM THAT, ABOUT THE LEVEL OF QUALCOMM'S MARKET POWER  
6           IN CDMA PRIOR TO 2015?

7           A.    WELL, I DRAW -- I DRAW TWO DIFFERENT RELATED CONCLUSIONS.  
8           THE FIRST IS THAT PRIOR TO 2015, QUALCOMM WAS DISCIPLINED BY  
9           THE THREAT OF ENTRY. IN SOME SENSE, ITS POWER WAS CONSTRAINED  
10          BY THE THREAT OF ENTRY IN CDMA, THOUGH THERE WAS NOT ACTUALLY  
11          ENTRY UNTIL 2015.

12          AND I ALSO -- I ALSO CONCLUDE FROM THIS THAT, IN FACT, THE  
13          REASON THERE WAS NO ENTRY PRIOR TO 2015 WAS BECAUSE OF THE  
14          DECLINE OR THE STAGNATION, IF YOU WILL, IN DEMAND FOR CDMA.

15          AND, IN FACT, THE REASON FOR A LACK OF ENTRY PRIOR TO 2015  
16          WAS NOT THE BARRIERS TO ENTRY THAT PROFESSOR SHAPIRO DESCRIBES.

17          Q.    PUTTING ASIDE THE THREAT OF ENTRY, WERE THERE OTHER WAYS  
18          THAT QUALCOMM'S MARKET POWER IN CDMA WAS CONSTRAINED?

19          A.    YES. THERE'S ALSO THE FACT THAT QUALCOMM'S LARGE BUYERS  
20          PURCHASED MORE THAN CDMA. IN FACT, MANY OF QUALCOMM'S  
21          CUSTOMERS PURCHASED WCDMA CHIPS, WHICH THEY THEN USED AS PART  
22          OF A LARGER NEGOTIATION STRATEGY TO DISCIPLINE QUALCOMM'S CDMA  
23          PRICES.

24          Q.    SO IF YOU TURN TO TAB 5, AND SLIDE 9, THIS IS A SLIDE  
25          PREPARED BY PROFESSOR SHAPIRO.

1 WHAT DOES THIS SLIDE SHOW YOU --

2 A. WELL, THIS IS --

3 Q. -- ABOUT THE ABILITY OF LARGE BUYERS TO CONSTRAIN  
4 QUALCOMM?

5 A. SO THIS IS FIGURE 6 FROM PROFESSOR SHAPIRO'S REBUTTAL  
6 REPORT, AND WHAT IT'S DESCRIBING IS THE LEVEL AND THE  
7 COMPOSITION OF HANDSETS SOLD WORLDWIDE, AND IT'S DESCRIBING THE  
8 COMPETITION BETWEEN CDMA AND NON-CDMA. OF COURSE, WCDMA IS  
9 INCLUDED IN NON-CDMA.

10 AND WHAT YOU SEE IS THAT THE BULK OF PURCHASES, OR  
11 HANDSETS, IN THE WORLD ARE OF NON-CDMA HANDSETS, AND THAT CDMA  
12 CONSTITUTES A RELATIVELY STABLE NICHE MARKET.

13 Q. AND HAVE YOU SEEN EVIDENCE OF THIS ABILITY TO LEVERAGE  
14 NON-CDMA TO CONSTRAIN CDMA PRICES PLAY OUT IN THE EVIDENCE?

15 A. YES, I HAVE. IN FACT, I'VE LOOKED BOTH FOR EVIDENCE IN  
16 THE RECORD THAT QUALCOMM'S BUYERS USE THEIR PURCHASES OF  
17 NON-CDMA CHIPS TO CONSTRAIN CDMA, AND I'VE ALSO EVALUATED FOR  
18 EACH OF QUALCOMM'S LARGE CUSTOMERS, FOR NINE OF THEIR TOP TEN,  
19 APPLE BEING THE TENTH AND WE'LL DISCUSS APPLE SEPARATELY, BUT  
20 I'VE LOOKED AT EVIDENCE AS TO WHETHER QUALCOMM'S BIG CUSTOMERS  
21 ACTUALLY HAVE SIGNIFICANT PURCHASES OF NON-CDMA TO ENGAGE IN  
22 THIS TYPE OF STRATEGY.

23 AND I -- SO THIS IS WHAT I EXPLORED, AND I FOUND EVIDENCE  
24 TO SUPPORT THE THEORY.

25 Q. LET'S MOVE ON TO THE APPLE AGREEMENTS.



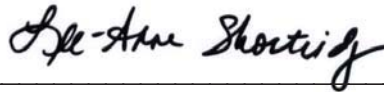
CERTIFICATE OF REPORTERS

WE, THE UNDERSIGNED OFFICIAL COURT REPORTERS OF THE  
UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF  
CALIFORNIA, 280 SOUTH FIRST STREET, SAN JOSE, CALIFORNIA, DO  
HEREBY CERTIFY:

THAT THE FOREGOING TRANSCRIPT, CERTIFICATE INCLUSIVE, IS  
A CORRECT TRANSCRIPT FROM THE RECORD OF PROCEEDINGS IN THE  
ABOVE-ENTITLED MATTER.



IRENE RODRIGUEZ, CSR, CRR  
CERTIFICATE NUMBER 8076



LEE-ANNE SHORTRIDGE, CSR, CRR  
CERTIFICATE NUMBER 9595

DATED: JANUARY 22, 2019

A421

### **CERTIFICATE OF SERVICE**

I hereby certify that I electronically filed the foregoing with the Clerk of the Court for the United States Court of Appeals for the Ninth Circuit by using the appellate CM/ECF system on July 8, 2019. All participants in the case are registered CM/ECF users, and service will be accomplished by the appellate CM/ECF system.

/s/ Thomas C. Goldstein  
Thomas C. Goldstein